FLIGHT
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1927

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April 19 .... Aero Golfing Soc. Match, Moor Park.
April 25 .... Annual Dinner, 29th Division Association, Cafe Royal, London.
April 27 .... Inst.Ae.E. Visit to Works of De Havilland Aircraft Co., Ltd., Stag Lane Aerodrome, Edgware.
April 28 .... "Seaplane Design." Major R. E. Penny, before R.Ae.S.
May 10 .... Aero Golfing Soc. Match, Berkhamsted.
May 10 .... "Aerial Survey," Maj. H. Hemming, A.F.C., etc., before Inst.Ae.E.

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The Index for Vol. xviii of "Flight" (January to December, 1926) is now ready, and can be obtained from the Publishers, 36, Great Queen Street, Kingsway, W.C.2. Price 1s. per copy (1s. 1d. post free).

EDITORIAL COMMENT.

The Bournemouth "Easter Egg"

THE Royal Aero Club has excelled itself in the matter of Easter fare. The Bournemouth meeting, which commences on the afternoon of Good Friday, is the first aviation meeting of the year, and from what can be gathered it should be one of the most interesting air race meetings we have had for a very long time. The entries list is probably the largest one on record in this country, since the war, at any rate, the number of races scheduled being no less than 12, and the average number of machines entered for each race being 12 or so. Altogether, some 153 machines have been entered judged on this basis. This does not, of course, mean that actually there will be 153 machines at Bournemouth, but merely that many of those present will fly in all or nearly all of the races. For all that, the meeting should be one very well worth watching, and all who can possibly do so should make a point of visiting Bournemouth during the holidays.

A list of the entries, and brief particulars of the various events, will be found elsewhere in this issue. There is little need to add anything to this, but it may be shortly pointed out that the "private," as distinct from the "trade," element is well to the fore, the great majority of the machines taking part being owned either by private individuals or by the Light Aeroplane Clubs. This is, we consider, a very healthy sign of the times, and we trust that this feature of the 1927 Bournemouth Easter Meeting may be accepted as a happy augury for the future. The meeting will not have the peculiar attraction of ultra high speed, but, on the other hand, so many of

the competing machines are of identical type and power that some very close finishes should be seen.

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The First Bournemouth Meeting

By way of a contrast, we have thought it of interest to publish in this issue of FLIGHT a brief memoir of the first Bournemouth aviation meeting, held in 1910, or only seventeen years ago. Yet what a change has taken place in those seventeen years. Perhaps nothing brings home the progress made since then better than the recollection that Colonel Alec Ogilvie was still, at the Bournemouth meeting, starting his machine, the twin-propeller Wright, by means of the starting rail, derrick and weight. In other words, he was catapulted off the ground.

Rather surprising is also the fact, rediscovered after 17 years, that in the slow-flying contest of the 1910 Bournemouth meeting the Hon. C. S. Rolls was winner with a speed of 25 m.p.h.! Probably the only machine in existence to-day capable of equalling this performance, or at any rate coming close to it, is the English Electric Company's "Wren," with 10 h.p. motor-cycle engine. At the other end of the scale we had, in 1910, Morane's Bleriot monoplane, on which he won the prize for the fastest lap with a speed of 56·64 m.p.h. Nowadays this is an average *landing* speed. Another point which shows the progress that has been made is that the difference between the lowest flying speed and the highest top speed in 1910 was only 31·3 m.p.h., or the top speed of the fastest machine was only 2·24 times the lowest speed of the slowest. In modern times this percentage speed range is attained *by the same machine.* Yet there are those who will tell us that there has been no progress in aerodynamics since the early days.

If proof were needed of the very real progress that has been made it is provided by Mr. Manning's amazing "Wren" (we make no apology for returning to this unique machine of modern times). The top speed of this machine was probably very nearly the same as that of Morane's Bleriot in 1910, although the actual horse-power of the engine was but one-seventh (*i.e.*, 10 h.p. as against 70). Also, the low speed of the "Wren" was approximately the same as that of Rolls's Wright biplane, so that the "Wren" covered near enough the actual speed ranges obtained at the first Bournemouth meeting.

Looking at the matter in another way, it can be said that the De Havilland "Moth" has approximately the same horse-power as the Bleriot flown by Morane, *i.e.*, 70 h.p. The top speed of the "Moth" is, however, about 100 to 104 m.p.h., as against the 56·6 of the Bleriot, and it is a two-seater, whereas Morane's monoplane was a single-seater.

Thus, if we use the performances established at Bournemouth in 1910 as a basis of comparison with modern machines, we see that, nowadays, we can obtain the same performance for one-sixth the power, or for the same power we can carry double the load at very nearly double the speed. If that is not progress we should like to know what is.

If it were possible to do so, it would be illuminating to hold a real Aerial Pageant in which machines should carry out a fly-past, the earliest types such as the Voisin, Wright and Farman biplanes and Antoinette and Bleriot monoplanes coming first, followed in proper chronological order by types representing the evolution of the aeroplane, terminating with the fastest single-seater racers of modern times. It is to be feared that actual machines of the earlier types would be difficult to find, or if dug up would probably be found to have deteriorated somewhat (they would certainly never obtain their airworthiness certificates!), but copies of many of them could probably be built at relatively small cost, and if such a show were turned into a "circus," touring the country from one end to the other, we think that very considerable interest would be aroused. Not only so, but the general public should be convinced of the progress that has been made, and would be more likely to realise that flying has now reached a stage when it is to be taken seriously. As a feature of an "air-mindedness propaganda" such a pageant would have a great deal to recommend it.

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"Private Flying"

Commencing with the present issue of FLIGHT we publish a section under the title "Private Flying." As the sub-title of this section indicates, the new section is published "in the interests of the Private Owner, Owner-Pilot and Club Member." Since the formation of the Light Aeroplane Clubs a couple of years ago, the development of private flying has progressed at a very rapid rate, and there is every indication that the rate of progress will continue to increase during the next few years, probably even more rapidly than can be foreseen at the moment.

Commercial aviation, subsidised and otherwise, is following one line of development. Private flying must follow a rather different line, although in the initial stages a Government subsidy was necessary before a start could be made, and may continue to be required for a few years yet. That private flying will ultimately be able to "fly by itself," as Mr Winston Churchill put it in connection with commercial aviation, is not to be doubted. The light 'plane clubs now in existence have done excellent propaganda, and one very gratifying result—a direct result we believe—has been that quite a number of people have purchased their own aeroplanes, which they use for sport and pleasure—not to say for business. As the number of machines sold increases so the manufacturing facilities improve, with consequent reduction in the price of machines. The result that might be expected from this process of evolution has been realised in practice, and the whole problem of the low-priced aeroplane, starting as a form of vicious circle, is in a fair way of solving itself. Moreover, if the start was handicapped by a vicious circle, the future development will be in the nature of a "snow-ball," more and more being gathered in it at each revolution.

In order to make the new section of FLIGHT a success, the close co-operation of all interested in private flying is essential. "Private Flying" is intended to form a link between all those who fly in a private capacity, and although their number at present is not a very large one, it is bound to increase rapidly in the future. News of the experiences of private owners, owner-pilots and clubs are bound to have a stimulating effect, and we would cordially invite all who own or use machines to send us news items concerning their experiences and activities at frequent and regular intervals, illustrated whenever possible by photographs. We shall always be glad to consider for publication all such material relating to private flying, and will endeavour to find space for it in the new section of FLIGHT. "Private Flying" will be published every week, and if you desire to see it grow into a large section, send along your news.

FLIGHT

THE BOURNEMOUTH EASTER MEETING

Programme of Events

GOOD FRIDAY, APRIL 15

2.30 p.m. Event 1.—Boscombe Stakes. *Flying Club Instructors Scratch Race.*—Open to Standard D.H. "Moths" with "Cirrus" Mark I engines, entered by recognised Flying Clubs. Pilots must be Pilot Instructors employed by the Clubs. Course approximately 10 miles.

First Prize £20. Second Prize £10, if four or more starters. Entries to be made by the Flying Clubs owning the aeroplanes.

Registration Mark.	Entrant.	Machine and Engine.	Pilot.
G-EBKT	London A.C.	D.H. "Moth" "Cirrus" Mark (I)	Capt. F. G. M. Sparks.
G-EBMF	London A.C.	D.H. "Moth" "Cirrus" Mark (I)	Capt. F. G. M. Sparks.
G-EBOH	Hampshire A.C.	D.H. "Moth" "Cirrus" Mark (I)	Flight-Lieut. G. I. Thomson.
G-EBLV	Lancashire A.C.	D.H. "Moth" "Cirrus" Mark (I)	J. J. Scholes.

3 o'clock. Event 2.—Poole Handicap.—Open to any type of aeroplane entered by the owner, who must also be the pilot. Course approximately 20 miles.

First Prize £30. Second Prize £10 Third Prize £5, if six or more starters.

G-EBPU	The Hon. Lady Bailey	D.H. "Moth," Cirrus Mark II.	The Hon. Lady Bailey.
G-EBQH	Capt. G. de Havilland	D.H. "Moth," X, Cirrus Mark II.	Capt. G. de Havilland.
G-EBOG	Dudley Watt	S.E.5A, Wolseley "Viper."	Dudley Watt.
G-EBQM	Flying-Officer A. H. Wheeler	S.E.5A, Wolseley "Viper."	Flying-Officer A. H. Wheeler.
G-EBJO	N. H. Jones	A.N.E.C.II, "Cherub III."	N. H. Jones.
G-EBOV	Bert Hinkler	Avro "Avian," Cirrus Mark II.	Bert Hinkler.
G-EBNX	L. Le Roy Irvin	D.H. "Moth," Cirrus Mark II.	L. Le Roy Irvin.
G-EBAJ	Lieut.-Col. G. L. P. Henderson	Avro 548, 80 h.p. Renault.	Lieut.-Col. G. L. P. Henderson.

3.30 p.m. Event 3.—Christchurch Handicap Stakes.—Open to any type of aeroplane owned by flying clubs. Entries must be made by the clubs owning the aeroplanes, and the pilots must be members and have been entirely trained by the clubs. Course approximately 20 miles.

First prize £30. Second prize £10. Third prize £5, if six or more starters.

G-EBMF	London A.C.	D.H. "Moth," Cirrus Mark I	Capt. H. Spooner.
G-EBKT	London A.C.	D.H. "Moth," Cirrus Mark I	Major K. M. Beaumont, D.S.O.
G-EBJM	London A.C.	"Bristol" Brownie, "Cherub III"	G. H. Craig.
G-EBLV	Lancashire A.C.	D.H. "Moth," Cirrus Mark I	G. Twemlow.

4.15 p.m. Event 4. Ensbury Park Stakes. *Low Power Handicap.*—Open to any type of aeroplane, the total piston displacement of the power plant of which does not exceed 1,500 c.c. Open to all pilots. Course approximately 10 miles.

First prize, £20. Second prize £10, if five or more starters.

G-EBJM	London A.C.	"Bristol" Brownie	Capt. F. G. M. Sparks.
G-EBMB	F. Sigrist	Hawker "Cygnet"	Fl.-Lt. P. W. S. Bulman, M.C., A.F.C.
G-EBJO	N. H. Jones	A.N.E.C. II	N. H. Jones.
G-EBPB	Felixstowe Light A.C.	C.L.A.4	Fl.-Lt. N. Comper.
G-EBJH	R.A.E. Aero Club	Hawker "Cygnet"	Fl.-Of. R. L. Ragg.

All five machines are fitted with Bristol "Cherub III" engines.

4.45 p.m. Event 5. Branksome "Cirrus" Handicap Stakes.—Open to any type of two-scater aeroplane, fitted with the "Cirrus" engine Mark I or Mark II. Passenger must be carried. Open to all pilots. Course approximately 20 miles.

First prize, £20. Second prize, £10, if five or more starters.

Heat 1.

G-EBPW	Robert A. Bruce	Westland "Widgeon III"	Mark (II)	Sqd.-Ldr. T. H. England.
G-EBNX	L. Le Roy Irvin	D. H. "Moth"	,, (II)	Capt. F. G. M. Sparks.
G-EBOV	Bert Hinkler	Avro	,, (II)	Bert Hinkler.
G-EBNO	De Havilland Aircraft Co.	D.H. "Moth"	,, (II)	Capt. H. S. Broad.
G-EBPG	Fl.-Lt. S. L. G. Pope	D.H. "Moth"	,, (II)	Fl.-Lt. S. L. G. Pope.
G-EBLV	Lancashire A.C.	D.H. "Moth"	,, (I)	J. J. Scholes.
G-EBMF	London A.C.	D.H. "Moth"	,, (I)	G. Terrell.

5.15 p.m. Event 6. *Heat* 2.

G-EBPU	The Hon. Lady Bailey	D.H. "Moth"	Mark (II)	The Hon. Lady Bailey.
G-EBQH	Capt. G. de Havilland	D.H. "Moth"	,, (II)	Capt. G. de Havilland.
G-EBKT	London A.C.	D.H. "Moth"	,, (I)	A. R. Ogston.
G-EBQL	A. V. Roe & Co., Ltd.	Avro "Avian"	,, (II)	J. C. Cantrill.
G-EBQN	R.A.E. Aero Club	Avro "Avian"	,, (II)	Fl.-Lt. J. A. Gray.
G-EBOH	Hampshire A.C.	D.H. "Moth"	,, (I)	Fl.-Lt. G. I. Thomson.
G-EBMJ	Short Bros. (Rochester & Bedford), Ltd.	Short "Mussel"	,, (I)	J. L. Parker.

6 o'clock. Event 7. Final.—The first three in each heat compete in the Final.

SATURDAY, APRIL 16

2.30 p.m. Event 1. Bournemouth Easter High-Power Handicap.—Open to any type of aeroplane with engine of 100 b.h.p. or over. Open to all pilots. Course approximately 20 miles.

First prize £40. Second prize £10. Third prize £5, if six or more starters.

G-EBOG	Dudley Watt	S.E.5A Wolseley "Viper"	Dudley Watt.
G-EBQM	Fl.-Of. A. H. Wheeler	S.E.5A Wolseley "Viper"	Fl.-Of. A. H. Wheeler.
G-EBKQ	A. V. Roe & Co., Ltd.	Avro "Lynx" 180 h.p. Siddeley "Lynx"	Fl.-Lt. H. A. Hamersley.
G-EBNE	A. V. Roe & Co., Ltd.	Avro "Gosport" Mono-Gnome	Major F. P. Scott.
G-EBPA	Mrs. S. C. Eliott-Lynn	S.E.5A Wolseley "Viper"	E. E. Stammers.

3.15 p.m. Event 2. Winton Handicap. *Flying Schools' Handicap Race.*—Open to any type of aeroplane entered by a recognised flying school or club giving flying instruction. The pilot nominated by the school or club must be employed as a pilot instructor. Course approximately 20 miles.

First prize £40. Second prize £10. Third prize £5, if six or more starters.

Registration Mark	Entrant	Machine and Engine	Pilot
G-EBKT	London A.C.	D.H. "Moth," Cirrus Mark I	Capt. F. G. M. Sparks.
G-EBMF	London A.C.	D.H. "Moth," Cirrus Mark I	Capt. F. G. M. Sparks.
G-EBPG	De Havilland School of Flying	D.H. "Moth," Cirrus Mark II	Capt. C. D. Barnard.
G-EBQL	Lancashire A.C.	Avro "Avian," Cirrus Mark II	J. C. Cantrill.
G-EBPB	Felixstowe Light A.C.	C.L.A.4, "Cherub III"	Fl.-Lt. N. Comper.
G-EBJH	R.A.E. Aero Club	Hawker "Cygnet," "Cherub III"	Fl.-Of. R. L. Ragg.
G-EBOH	Hampshire A.C.	D.H. "Moth," Cirrus Mark I	Fl.-Lt. G. I. Thomson.
G-EAJB	Henderson's Flying Schools, Ltd.	Avro 548, 80 h.p. Renault	Lt.-Col. G. L. P. Henderson.
G-EBLV	Lancashire A.C.	D.H. "Moth," Cirrus Mark I	J. J. Scholes.
G-EBQN	R.A.E. Aero Club	Avro "Avian," Cirrus Mark II	Fl.-Lt. J. A. Gray.

3.45 p.m. Event 3. Bournemouth Aerial "Oaks" Handicap.—Open to any type of aeroplane. Open to Lady pilots only. Course approximately 10 miles.

First prize £20.

G-EBPU	The Hon. Lady Bailey	D.H. "Moth" "Cirrus" (II)	The Hon. Lady Bailey.
G-EBNO	Fl.-Lt. J. R. Bell	D.H. "Moth" "Cirrus" (II)	Mrs. J. R. Bell.
G-EBKT	London A.C.	D.H. "Moth" "Cirrus" (I)	Miss O'Brien.
G-EBMF	London A.C.	D.H. "Moth" "Cirrus" (I)	Miss O'Brien.

4.15 p.m. Event 4. Bournemouth and District Business Houses Handicap Sweepstake.—The entry fees will be allocated as follows:—

First.—35 per cent. to the owner of the aeroplane; 30 per cent. to the entrant.

Second.—15 per cent. to the owner of the aeroplane; 10 per cent. to the entrant. The balance of 10 per cent. goes to the racing stakes. Course approximately 20 miles.

Heat 1.

G-EBLV	Hudson Bros.	D.H. "Moth" Cirrus Mark I	C. Twemlow.
G-EAJB	South Western Hotel	Avro 548, 80 h.p. Renault	Lt.-Col. G. L. P. Henderson.
G-EBOH	The Westover	D.H. "Moth," Cirrus Mark I	Fl.-Lt. G. I. Thomson.
G-EBJH	Five Ways Hotel	Hawker "Cygnet," "Cherub III"	Fl.-Of. R. L. Ragg.
G-EBPB	Frank Bertram	C.L., A.4, "Cherub III"	Fl.-Lt. N. Comper.
G-EBPG	Ness Bros.	D.H. "Moth," Cirrus Mark II	Fl.-Lt. S. L. G. Pope.
G-EBNO	Motor Macs	D.H. "Moth," Cirrus Mark II	Capt. H. S. Broad.
G-EBQN	Talbot Hotel	Avro "Avian," Cirrus Mark II	Fl.-Lt. J. A. Gray.
G-EBOV	The Morley Garage	Avro "Avian," Cirrus Mark II	Bert Hinkler.

4.45 p.m. Event 5.— *Heat* 2.

G-EBNE	Hudson Bros.	Avro "Gosport," 100 h.p. Mono-Gnome	Major F. P. Scott.
G-EBKQ	South Western Hotel	Avro "Lynx," 180 h.p. Siddeley "Lynx"	Fl.-Lt. H. A. Hamersley.
G-EBKD	The Westover	Blackburn "Blue Bird," 60 h.p. "Genet"	Sq.-L. W. H. Longton, D.F.C., A.F.C.
G-EBJT	Five Ways Hotel	Westland "Widgeon II," 60 h.p. "Genet"	Major L. P. Openshaw.
G-EBPW	Frank Bertram	Westland "Widgeon III," Cirrus Mark II	Sq.-L. T. H. England.
G-EBOU	Ness Bros.	D.H. "Moth," 60 h.p. "Genet"	Col. The Master of Sempill.
G-EBOG	Motor Macs	S.E.5A, Wolseley "Viper"	Dudley Watt.
G-EBPU	Talbot Hotel	D.H. "Moth," Cirrus Mark II	Capt. F. G. M. Sparks.
G-EBKT	The Morley Garage	D.H. "Moth," Cirrus Mark I	G. Terrell.

In the event of the aeroplanes allotted to the above entrants not being available owing to unforeseen circumstances the following aeroplanes have been placed at the disposal of the Royal Aero Club, and will be allotted in the following order:—

G-EBAJ	Avro 548, 80 h.p. Renault	A. B. H. Youell.
G-EBQL	Avro "Avian," Cirrus Mark II	J. C. Cantrill.
G-EBMB	Hawker "Cygnet," "Cherub III"	Major P. W. S. Bulman.
G-EBMF	D.H. "Moth," Cirrus Mark I	O. J. Tapper.
G-EBJM	"Bristol" Brownie, "Cherub III"	G. H. Craig.
G-EBMJ	Short "Mussel," Cirrus Mark I	J. L. Parker.
G-EBQM	S.E.5A, Wolseley "Viper"	Fl.-Of. A. H. Wheeler.

5.30 p.m. Event 6. Final. (The first three in each heat compete in the final.)

MONDAY, APRIL 18

2.30 p.m. Event 1. Bournemouth and District Hotels and Restaurants' Association Handicap.—The entry fees provided will be allocated as follows:—

First.—35 per cent. to the owner of the aeroplane. 30 per cent. to the entrant.

Second.—15 per cent. to the owner of the aeroplane. 10 per cent. to the entrant. The balance of 10 per cent. goes to the racing stakes. Course approximately 20 miles.

Heat 1.

G-EBNO	Bournemouth Imperial & Grand Hotels, Ltd.	D.H. "Moth," Cirrus Mark II	Capt. H. S. Broad.
G-EBLV	Hotel Burlington	D.H. "Moth," Cirrus Mark I	J. J. Scholes.
G-EBKT	Royal Exeter Hotel	D.H. "Moth," Cirrus Mark I	M. L. Bramson.
G-EBPW	Royal Bath Hotel	Westland "Widgeon III," Cirrus Mark II	Sq.-Leader T. H. England.
G-EBOG	Highcliffe Hotel	S.E. 5A Wolseley "Viper"	Dudley Watt.
G-EBPU	Branksome Tower Hotel	D.H. "Moth," Cirrus Mark II	Capt. F. G. M. Sparks.
G-EBOH	Haven Hotel	D.H. "Moth," Cirrus Mark I	Fl.-Lt. G. I. Thomson.
G-EAJB	Central Hotel	Avro 548, 80 h.p. Renault	Lt.-Col. G. L. P. Henderson.
G-EBJH	Gordon Hotels	Hawker "Cygnet," "Cherub III"	Flying Officer R. L. Ragg.

3.15 p.m. Event 2.— *Heat* 2.

Registration Mark	Entrant	Machine and Engine	Pilot
G-EBPB	Bournemouth Imperial & Grand Hotels, Ltd.	C.L.A.4, " Cherub III "	Fl.-Lt. N. Comper.
G-EBPG	Hotel Burlington	D.H. " Moth," Cirrus Mark II	Flying Officer J. Summers.
G-EBQN	Royal Exeter Hotel	Avro " Avian," Cirrus Mark II	Wing-Com. W. S. Douglas, M.C., D.F.C.
G-EBJT	Royal Bath Hotel	Westland " Widgeon II," 60 h.p. " Genet "	Major L. P. Openshaw.
G-EBOV	Highcliffe Hotel	Avro " Avian," Cirrus Mark II	Bert Hinkler.
G-EBNE	Branksome Tower Hotel	Avro " Gosport," 100 h.p. Mono-Gnome	Major F. P. Scott.
G-EBKQ	Haven Hotel	Avro " Lynx," 180 h.p. Siddeley " Lynx "	Fl.-Lt. H. A. Hamersley.
G-EBKD	Central Hotel	Blackburn " Blue-Bird," 60 h.p. " Genet "	Sq.-Ldr. W. H. Longton, D.F.C., A.F.C.
G-EBOU	Gordon Hotels	D.H. " Moth," 60 h.p. " Genet "	Col. The Master of Sempill.

In the event of the aeroplanes allotted to the above entrants not being available, owing to unforeseen circumstances, the following aeroplanes have been placed at the disposal of the Royal Aero Club, and will be allotted in the following order :—

G-EBAJ	Avro 548, 80 h.p. Renault	A. B. H. Youell.
G-EBQL	Avro " Avian," Cirrus Mark II	J. C. Cantrill.
G-EBMB	Hawker " Cygnet," " Cherub III "	Major P. W. S. Bulman, M.C., A.F.C.
G-EBMF	D.H. " Moth," Cirrus Mark I	O. J. Tapper.
G-EBJM	" Bristol " Brownie, " Cherub III "	Pilot-Officer P. G. Lucas.
G-EBMJ	Short " Mussel," Cirrus Mark I	J. L. Parker.
G-EBQM	S.E. 5A, Wolseley " Viper "	Flying-Officer A. H. Wheeler.

4 o'clock. Event 3.—" Kill Joy " Trophy and Stakes £55.—*Private Owners' Handicap.*—Open to any type of aeroplane privately owned and registered in the name of an individual. The definition of " privately owned " is at the sole discretion of the Royal Aero Club, who reserve the right to refuse any entries. Open to all pilots not necessarily the owners of the aeroplanes. Course approximately 20 miles.

First prize £40. Second prize £10. Third prize £5, if six or more starters.

G-EBPU	The Hon. Lady Bailey	D.H. " Moth," Cirrus Mark II	The Hon. Lady Bailey.
G-EBQH	Capt. G. de Havilland	D.H. " Moth " X, Cirrus Mark II	Capt. G. de Havilland.
G-EBOG	Dudley Watt	S.E.5A, Wolseley " Viper "	Dudley Watt.
G-EBQM	Fl.O. A. H. Wheeler	S.E.5A, Wolseley " Viper "	Fl.-O. A. H. Wheeler.
G-EBJO	N. H. Jones	A.N.E.C. II, " Cherub III "	N. H. Jones.
G-EBKD	Robert Blackburn	Blackburn " Blue Bird," 60 h.p. " Genet "	Sq.-Ldr. W. H. Longton, D.F.C., A.F.C.
G-EBOV	Bert Hinkler	Avro " Avian," Cirrus Mark II	Bert Hinkler.
G-EBPA	Mrs. S. C. Eliott-Lynn	S.E.5A, Wolseley " Viper "	E. E. Stammers.
G-EBNX	L. Le Roy Irvin	D.H. " Moth," Cirrus Mark II	Capt. F. G. M. Sparks.
G-EBAJ	Lt.-Col. G. L. P. Henderson	Avro 548, 80 h.p. Renault	Lt.-Col. G. L. P. Henderson.

4.30 p.m. Event 4. Bournemouth and District Hotels and Restaurants Association Handicap.—*Final.*—(The first three in each heat compete in the final.)

5 o'clock. Event 5.—Holiday Final Handicap.—Open to any type of aeroplane. Open to all pilots. Course approximately 20 miles.

First prize £30. Second prize £10. Third prize £5, if six or more starters.

Heat 1.

G-EBKQ	A. V. Roe & Co., Ltd.	Avro " Lynx," 180 h.p. Siddeley " Lynx "	Fl.-Lt. H. A. Hamersley.
G-EBJT	Robert A. Bruce	Westland " Widgeon II " 60 h.p. " Genet "	Maj. L. P. Openshaw.
G-EBOU	Col. The Master of Sempill	D.H. " Moth," 60 h.p. " Genet "	Col. The Master of Sempill.
G-EBQL	A. V. Roe & Co., Ltd.	Avro " Avian " Cirrus Mark II	J. C. Cantrill.
G-EBJM	London Aeroplane Club	" Bristol " Brownie " Cherub III "	M. L. Bramson.
G-EBPB	Felixstowe Light Aeroplane Club	C.L.A.4, " Cherub III "	Fl.-Lt. N. Comper.
G-EBMB	F. Sigrist	Hawker " Cygnet," " Cherub III "	Fl.-Lt. P. W. S. Bulman, M.C., A.F.C.
G-EBPA	Mrs. S. C. Eliott-Lynn	S.E.5a, Wolseley " Viper "	E. E. Stammers.
G-EBJH	R.A.E. Aero Club	Hawker " Cygnet " " Cherub III "	Fl.-O. R. L. Ragg.

5.30 p.m. Event 6.— *Heat* 2.

G-EBKT	London Aeroplane Club	D.H. " Moth," Cirrus Mark I	E. D. Moss.
G-EBJO	N. H. Jones	A.N.E.C. II, " Cherub III "	N. H. Jones.
G-EBOV	Bert Hinkler	Avro " Avian," Cirrus Mark II	Bert Hinkler.
G-EBOG	Dudley Watt	S.E.5A, Wolseley " Viper "	Dudley Watt.
G-EBKD	Robert Blackburn	Blackburn " Blue Bird," 60 h.p. " Genet "	Squad.-Ldr. W. H. Longton, D.F.C., A.F.C.
G-EBNX	L. Le Roy Irvin	D.H. " Moth," Cirrus Mark II	Capt. F. G. M. Sparks.
G-EBPW	Robert A. Bruce	Westland " Widgeon III," Cirrus Mark II	Squad.-Ldr. T. H. England.
G-EBQH	Capt. G. de Havilland	D.H. " Moth " X, Cirrus Mark II	Capt. G. de Havilland.
G-EBQM	Fl.-O. A. H. Wheeler	S.E.5A, Wolseley " Viper "	Fl.-O. A. H. Wheeler.

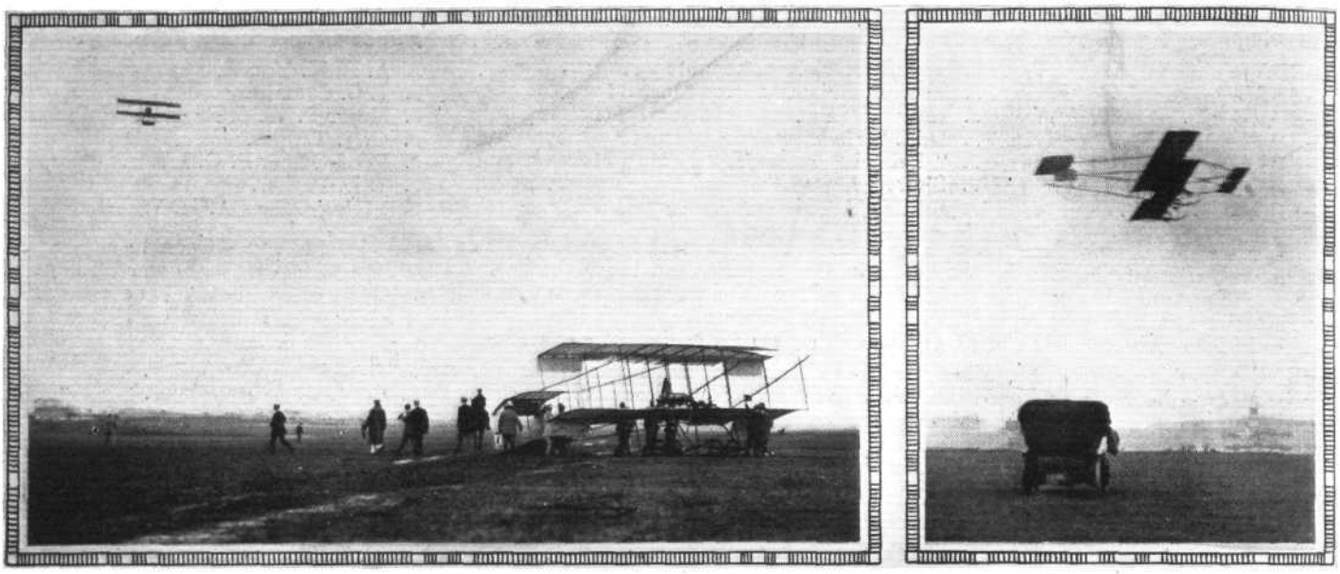
6 o'clock. Event 7.— *Heat* 3.

G-EBNO	De Havilland Aircraft Co.	D.H. " Moth," Cirrus Mark II	Capt. H. S. Broad.
G-EBMF	London Aeroplane Club	D.H. " Moth," Cirrus Mark I	O. J. Tapper.
G-EBNE	A. V. Roe and Co., Ltd.	Avro " Gosport," 100 h.p. Mono-Gnome	Major F. P. Scott.
G-EBQN	R.A.E. Aero Club	Avro " Avian," Cirrus Mark II	Wing-Com. W. S. Douglas, M.C., D.F.C.
G-EBPG	Flight-Officer J. Summers	D.H. " Moth," Cirrus Mark II	Flight-Officer J. Summers.
G-EBOH	Hampshire Aeroplane Club	D.H. " Moth," Cirrus Mark I	Flight-Lieut. G. I. Thomson.
G-EBAJ	Lt.-Col. G. P. L. Henderson	Avro 548, 80 h.p. Renault	A. B. H. Youell.
G-EAJB	Henderson's Flying Schools, Ltd.	Avro 548, 80 h.p. Renault	Lt.-Col. G. L. P. Henderson.
G-EBMJ	Short Bros. (Rochester & Bedford), Ltd.	Short " Mussel," Cirrus Mark I	J. L. Parker.

6.30 p.m. Event 8.—*Final.*—(The first three in each heat compete in the final.)

BOURNEMOUTH—1910

SEVENTEEN years ago, Bournemouth held its first Aviation Meeting. This meeting—which, incidentally, was the first big International Aviation Meeting held in this country—was an extraordinarily successful and interesting one, interesting especially when looked at from the retrospective point of view today. It was, however, unfortunately associated with one regrettable tragedy—a tragedy affecting not only the meeting itself, but the science of flying generally. We refer, of course, to the fatal accident to the Hon. C. S. Rolls, one of the leading pioneers of aeronautics, whose loss, great as it was, resulted in providing lessons of no small value to the science and future of flying. It is not our intention, however, to dwell further on this unpleasant subject—which has to be recorded—and we will, therefore, endeavour to give our readers a brief *résumé* of the proceedings at Bournemouth in 1910 by way of contrast with this week's Flying Meeting.

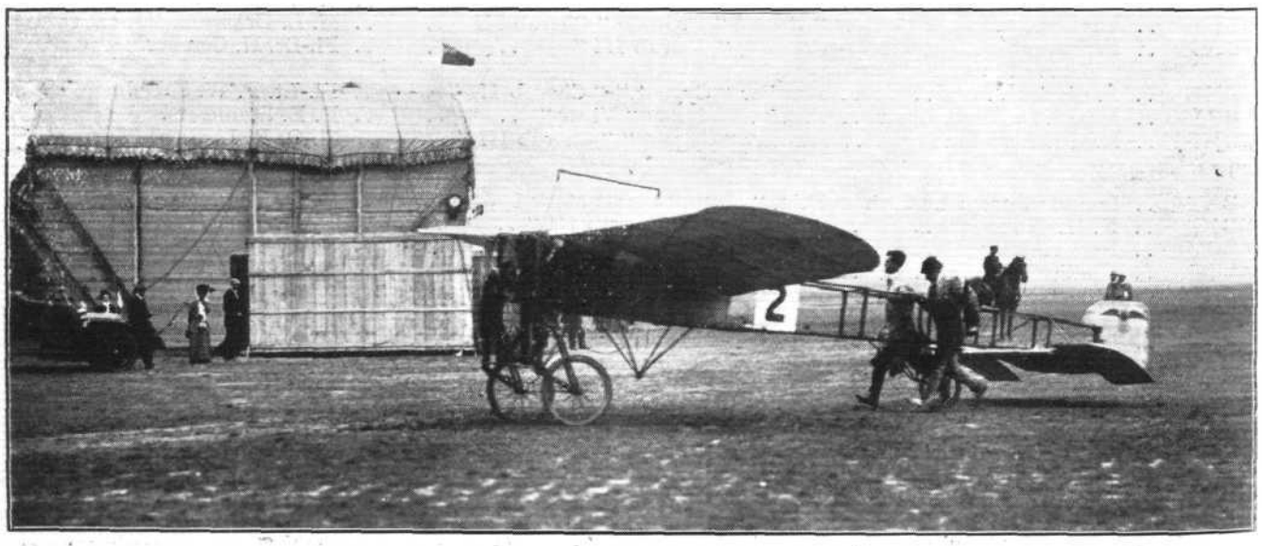


BOURNEMOUTH—1910 : On the left is seen Grahame-White flying his Farman biplane in the Distance Contest (Dickson's Farman on the ground), and on the right Cecil Grace, on the Short biplane, starts for the Altitude Contest.

The 1910 Meeting, which was held in connection with the Centenary Fêtes over a period of six days—from July 11 to 16—took place on the east side of Bournemouth, at Southbourne, and not where the present events are being flown, at Ensbury Park Racecourse, which is on the west side of the town. It may, perhaps, be of interest to mention here in passing that the latter aerodrome first came into being during the Great War, when Mr. F. E. Etches ran a flying school there, and subsequently occasionally held small flying meetings with exhibition and passenger flying.

However, to return to the 1910 meeting. The course lay close to the cliff just beyond Boscombe, and was specially prepared for the purpose—hedges, earth banks and allotments being removed—with spacious enclosures and grand stands. A circuit of a little under two miles (3,140 yards), was laid out with four legs of 350 yards, 860 yards, 450 yards and 1,480 yards, respectively.

Altogether, a sum of £8,500 went in prize money, in addition to medals, the largest prize being £3,000 for the longest flight. The entries list comprised some twenty pilots, four of whom were foreign. The pilots and their machines were as follows :—(1) Edouard Audemar's, Clement Bayard-Santos Dumont monoplane, 32 h.p. Clement. (2) G. A. Barnes, Humber monoplane, 40 h.p. Humber. (3) Hon. Alan Boyle, Avis monoplane, 40 h.p. E.N.V. (4) M. Christiaens, H. Farman biplane, 65 h.p. E.N.V. (5) G. B. Cockburn, H. Farman biplane. (6) S. F. Cody, Cody biplane. (7) G. C. Colmore, Short biplane, 50 h.p. Green. (8) Capt. Bertram Dickson, H. Farman biplane 60 h.p. Gnome. (9) J. Armstrong Drexel, Bleriot monoplane, 60 h.p. Gnome. (10) L. D. L. Gibbs, H. Farman, biplane 60 h.p. Gnome. (11) Cecil Grace, Short biplane 65 h.p. E.N.V. (12) C. Grahame-White, H. Farman biplane, 60 h.p. Gnome. (13) Robert " Jones " (Loraine),



["FLIGHT" *Photograph*

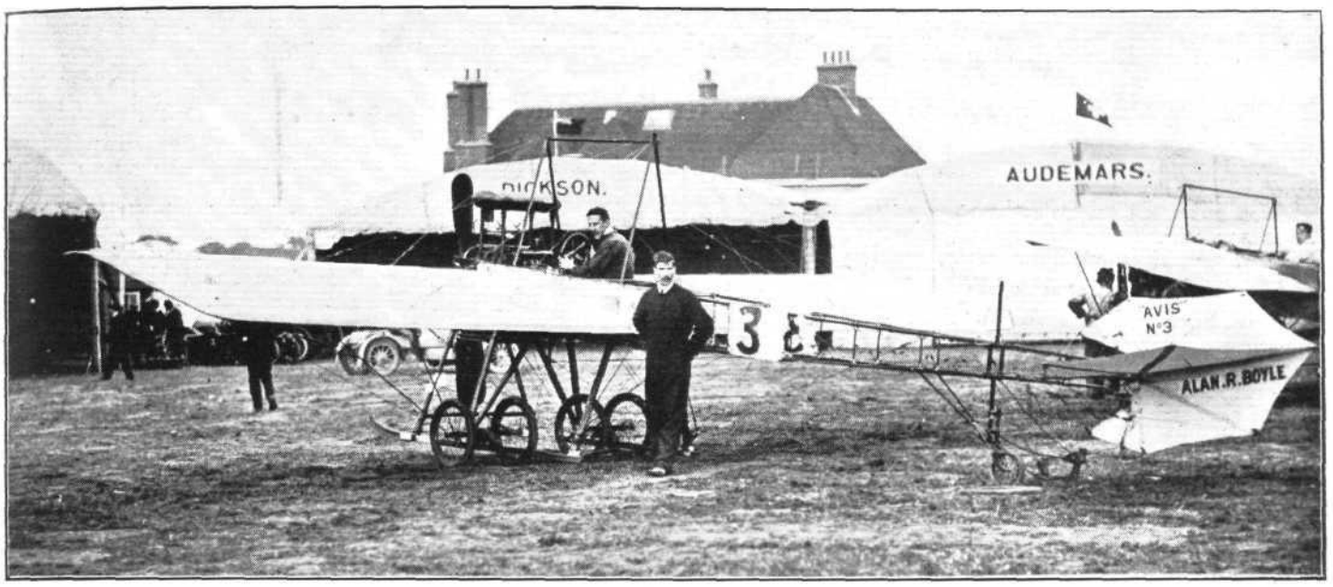
BOURNEMOUTH—1910 : G. A. Barnes concluding a flight on his Humber, Bleriot-type monoplane.

FLIGHT
AIRCRAFT ENGINEER AIRSHIPS

Farman biplane, 60 h.p. Gnome. (14) J. T. C. Moore-Brabazon, Short biplane. (15) Leon T. Morane, Bleriot monoplane, 60 h.p. Gnome. (16) A. Ogilvie, Short-Wright biplane. (17) James Radley, Bleriot monoplane, 25 h.p. Anzani. (18) A. Rawlinson, H. Farman biplane. (19) Hon. C. S. Rolls, Wright biplane, 30 h.p. Wright. (20) Louis Wagner, Hanriot monoplane, 40 h.p. Clerget.

Thus, it will be noticed that there were 13 biplanes—of which seven were Farmans—and 7 monoplanes, three of

As the spectators arrived on the opening day they saw the Hon. G. S. Rolls making a trial flight on his Wright, followed shortly after by Grahame-White on his Farman. Then came the first event, Christiaens trying for the long distance on his Farman with the short lower plane. As he hurtles round and round the course, flying low and steadily, Rolls ascends again, this time for the slowest circuit, and Radley also starts off on his Bleriot to try for the Speed prize. Thus we have three machines *in the air together* (great excitement),



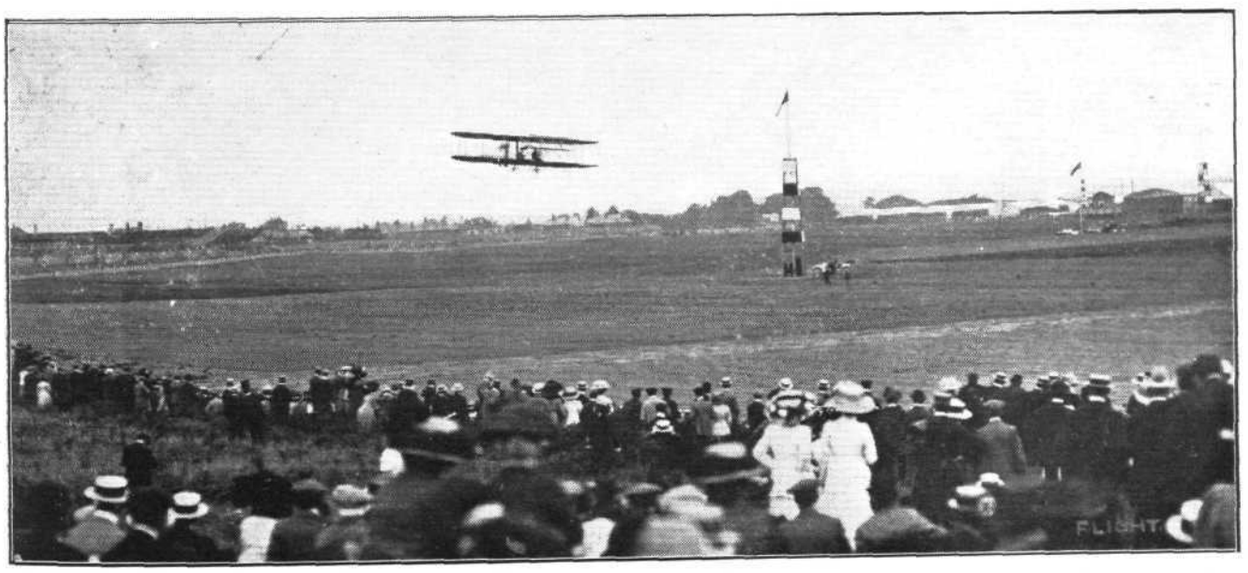
BOURNEMOUTH—1910 : A British-built monoplane, the " Avis " (40 E.N.V.), flown by the Hon. Alan Boyle.

which were Bleriots, while in most cases the horse-power of the engines fitted was but 60 ! One could almost call it a 'light 'plane " meeting !

Various contests were arranged, attempts at most of which were made each day, comprising the following :—Longest Flight, Speed, Altitude, Starting (take-off), Alighting, Weight-carrying, Slowest Circuit, and Sea Flight, to Needles and back. Prizes were also awarded for General Merit, whilst the *Daily Telegraph* gave a prize for the best exhibition by a British pilot.

one achieving the terrific speed of 37·4 m.p.h., while another (Rolls) succeeds in flying at a speed of 25·5 m.p.h. !

Armstrong-Drexel then tries for altitude, taking his Bleriot up to nearly 2,000 ft. Meanwhile Christiaens is still in circulation, and only descends, after completing 47 laps (83 miles 1,500 yards) in 2 hrs. 20 mins. 52$\frac{1}{5}$ secs., because his Gnome began to get *very* sticky. Thus, throughout the rest of the day various competitors have tries for one or other of the different contests, some making several attempts, and, like Coué, getting better and better. Drexel reaches 2,490 ft.,



["FLIGHT" *Photographs*

BOURNEMOUTH—1910 : The Hon. C. S. Rolls on his Wright biplane flying in the Slow Speed Contest.

And now, perhaps, we may briefly outline the proceedings during the six days of excitement. Firstly, on the Sunday preceding the opening of the meeting, large numbers of visitors turned up at the ground to inspect the various machines—it being Sunday and at Bournemouth, no charge for admission was made. Some stir was caused by the arrival, by air, of McArdle, *with luggage*, on Armstrong-Drexel's Bleriot all the way from the flying school in the New Forest.

Christiaens makes fastest time for the day with 39·54 m.p.h., and Grahame-White improves the Long Distance with 50 laps (89 miles 360 yards) in 2 hrs. 31 mins. 49$\frac{3}{5}$ secs. The first day's pilots were Rolls, Grahame-White, Christiaens, Radley, Drexel, Dickson, Barnes, Boyle and Gibbs.

The next day, Tuesday, was a short and sad one, for it was during the opening contest—Landing—that poor Rolls was killed, and after the disaster flying was stopped for the day. In this contest competitors had to land in a circle, 100 yards

diameter, which had been marked out opposite the Grand Stand. On this occasion the wind was blowing almost directly towards the latter, so that competitors were unable to get a clear run head to wind into the circle. Both Graham-White and Rolls carried out attempts, landing in the circle, almost across-wind, but coming to rest some distance outside. Eventually, Rolls made a second attempt, flying over the Grand Stand and diving into the circle. It was while Rolls was flattening out that the tail outrigger buckled sideways, was struck by the propellers, and collapsed, causing the *machine to crash to earth, killing Rolls almost instantly.*

The Wednesday was a comparatively quiet day, the outstanding features consisting of such items as passenger flights by Graham-White, test flights by Audemars on the "Angry Wasp," and by Dickson, Morane, Cecil Grace and Barnes. Cody also brought his machine out of its hangar—and put it back.

It was not until towards the close of the day that any attempts were made for the contests, when Morane climbed to 4,100 ft., and then tried for speed, making 56·64 m.p.h., while Dickson and Andemars went for slowest and fastest speeds, respectively.

Thursday opened with the Starting Contest, for which competitors made a last-minute rush, causing plenty of excitement and a slight dispute. The Alighting Contest was also run, Grahame-White getting nearest the "bull" with 7 yards from the centre. Further attempts at fastest laps followed, but no one improved on Morane's 56 m.p.h. After Wagner and Grace had gone up for slow speed, Rawlinson went up on his Farman, but landed in the rough ground, with the result that his chassis collapsed and he was severely injured.

The first event on Friday was the Weight Carrying Contest, which produced several competitors. Morane carried a passenger on his two-seater Bleriot, which was at that time a new model with pilot and passenger sitting side by side. Christiaens also competed, but he too landed in the rough ground, broke up his machine, and sustained severe injuries. Grahame-White came next, but failed to carry the weight owing to a faulty engine. Dickson was the only competitor to complete the course with a passenger.

After this came a few more attempts at speed, then followed the sea flight to the Needles and back. This event caused much excitement, for it was one thing to see machines flying round and round the pylons, but quite another thing to see them *actua'ly flying across country*! Morane and Drexel both tried for this event, and put up splendid flights in a stiffish wind. Morane accomplished the 21 miles in 25 mins. $12\frac{2}{5}$ secs. Drexel was carried off his course and took 10 mins. longer. An altitude flight by Grace and a slow flight by Dickson ended the day's flying.

There was a stiff wind blowing on the last day of the meeting, when the proceedings opened with a fine flight by "Jones" on his Farman, the only event of the morning. Conditions improved slightly in the afternoon, and once again "Jones" came forward. This time he decided to try for the Sea flight, although many thought it was *very* daring. However, he got away and flew seawards, but in a short time down came the rain and he was lost sight of. Time passed, and he did not return, so that there was little doubt that either he had been forced down in the sea—fortunately, a number of boats were patrolling the course—or else he had landed on the island. It was, therefore, with some considerable relief that a telegram was received some time later from the Isle of Wight stating that an aeroplane had been observed on the cliffs!

After the rain came a calm, which resulted in a certain amount of activity at the aerodrome. Morane came out for speed, followed by Drexel and Wagner, the latter crashing his machine, without personal injury, in the "rough." Another, more serious, crash followed, when Boyle, also landing on the rough ground, was thrown out of his machine on his head, sustaining severe concussion. Fortunately, he was wearing a safety helmet, or his injuries might have been more serious—as it was he was unconscious for an hour or more.

Some excellent flying was put up by Audemars on the "Angry Wasp" and McArdle on the Bleriot during the afternoon, while further attempts were made at the un-won prizes in the weight-carrying contest, and also some final efforts by Dickson for distance and altitude. In the weight-carrying event both Grahame-White and Morane took up passengers, the former lifting 425 lbs. and the latter 412 lbs. And so ended the first Bournemouth aviation meeting!

Before concluding, it may perhaps be of interest if we give a summary of the results of the various contests, viz.:—

General Merit—(1) Morane (Bleriot); (2) Drexel (Bleriot) and Grahame-White (H. Farman); (4) Dickson (H. Farman).

Speed (5 laps = 8 miles 1,620 yards)—(1) Morane, 55·9 m.p.h.; (2) Audemars ("Demoiselle"), 46·54 m.p.h.; (3) Wagner (Hanriot), 43·87 m.p.h.; (4) Drexel, 40·52 m.p.h.

Fastest Lap (1 mile 1,380 yards)—(1) Morane, 56·64 m.p.h.

Slow Speed—(1) Rolls (Wright), 25·33 m.p.h.

Altitude—(1) Morane, 4,107 ft.; (2) Drexel, 2,490 ft.; (3) Grahame-White, 1,660 ft.; (4) Dickson, 1,340 ft.

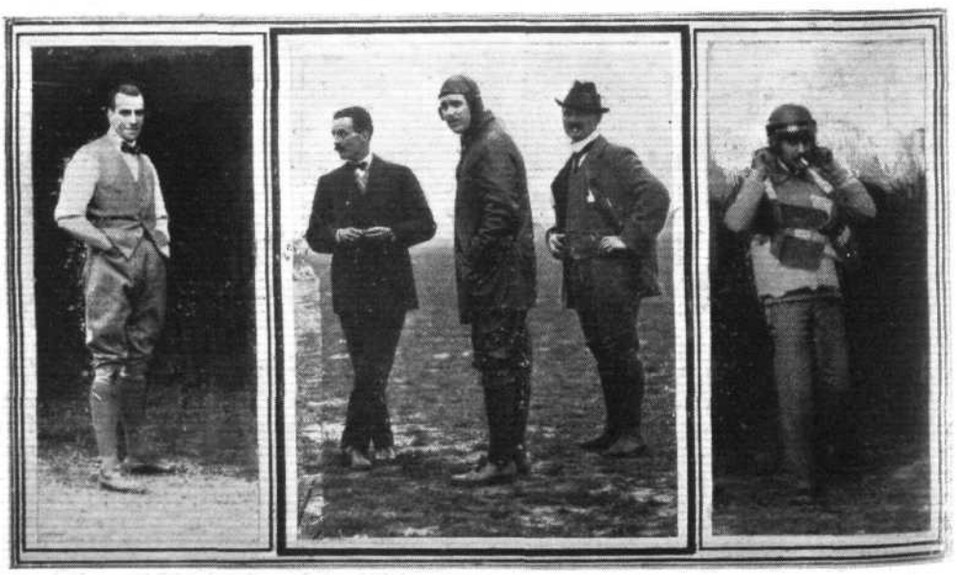
Distance—(1) Grahame-White, 90 miles 1,740 yds. (2 hrs. 34 mins $56\frac{1}{5}$ secs.; 35·2 m.p.h.); (2) Christiaens, 83 miles 1,500 yds. (2 hrs. 20 mins. $52\frac{1}{5}$ secs.; 35·6 m.p.h.); (3) Andemars, 17 miles 1,480 yds. (27 mins. $17\frac{1}{5}$ secs.; 39·3 m.p.h.); (4) Dickson, 12 miles 860 yds. (21 mins. $52\frac{3}{5}$ secs.; 33·8 m.p.h.).

Weight-carrying (1 lap)—(1) Dickson (load, 407·5 lbs.), 3 mins. 23 secs.; (2) Grahame-White (load, 425 lbs.), 3 mins. $23\frac{1}{5}$ secs.; (3) Morane (load, 412 lbs.), 2 mins. $37\frac{4}{5}$ secs.

Starting—(1) Dickson, 35 yds. 7 ins.; (2) Morane, 35 yds. 8 ins.; (3) Grahame-White, 37 yds. $9\frac{1}{2}$ ins.; (4) Boyle, 42 yds. 1 ft. 10 ins.

Alighting—(1) Grahame-White, 2 yds. 1 ft.; (2) Christiaens, 9 yds. 2 ft. 3 ins.; (3) Rolls, 26 yds. 10 ins.; (4) Dickson, 27 yds. 2 ft. 1 in.

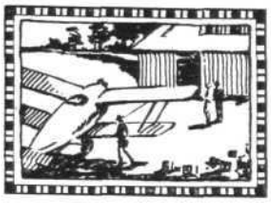
Sea Flight (21 miles)—(1) Morane, 25 mins. $12\frac{2}{5}$ secs.; 50 m.p.h.; (2) Drexel, 35 mins. 28 secs.; 35·5 m.p.h.; (3) Grahame-White, 45 mins. 47 secs.; 27·44 m.p.h.



["Flight" *Photographs*

Bournemouth—1910: A few of the Pioneers. From left to right, Claude Grahame-White, Capt. Dickson, J. Armstrong Drexel, W. H. McArdle and Leon Morane.

FLIGHT
THE AIRCRAFT ENGINEER AIRSHIPS

PRIVATE  FLYING

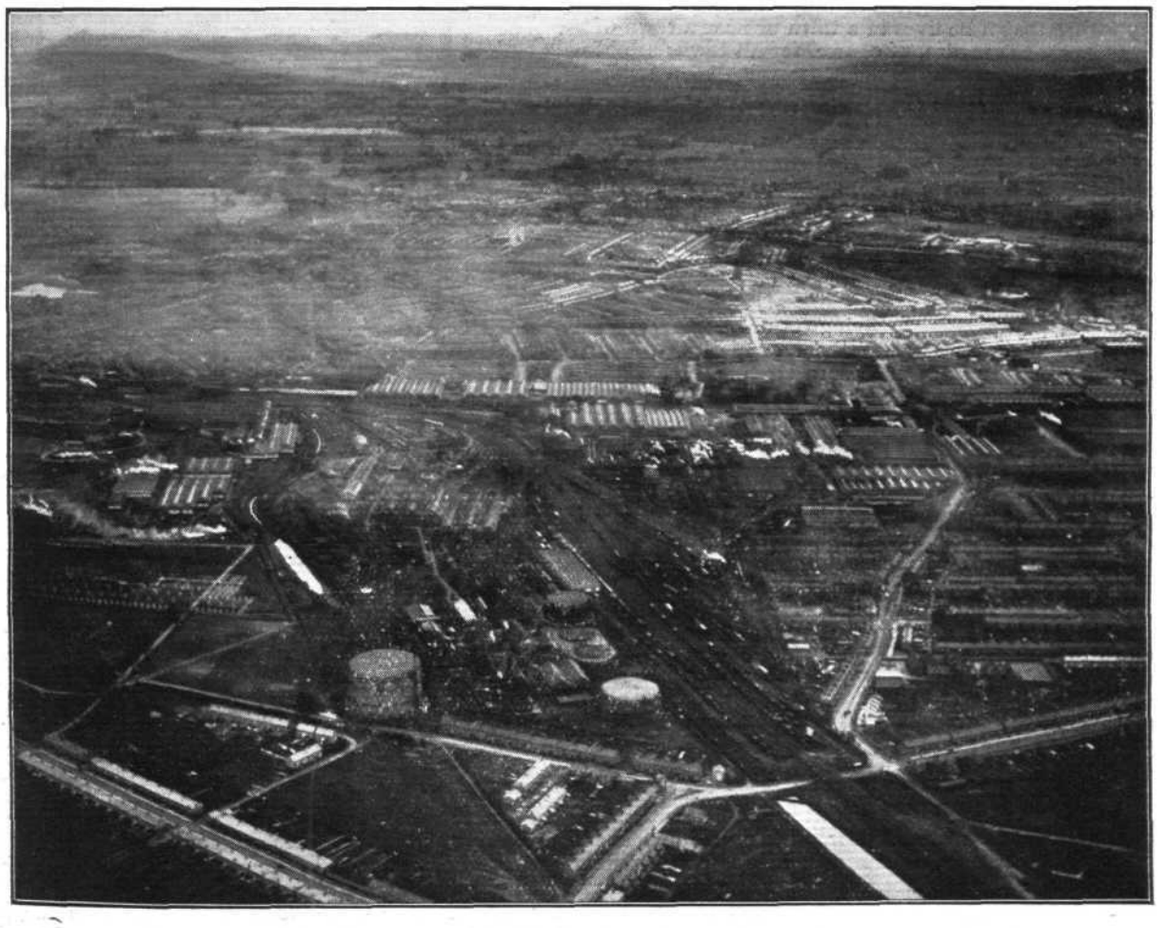
A Section of FLIGHT in the Interests of the Private Owner, Owner-Pilot, and Club Member

HOW TO BECOME A PILOT

By Joining a Light 'Plane Club

To-DAY we have definitely arrived at the dawn of a new era in aeronautics—private flying. Each week almost come evidences of a growing interest in this new sphere which, perhaps, offers the widest scope for the development of the aeroplane. It is being taken up as a sport and as a serious form of travel. It is attracting the old and the young. Women are amongst its most enthusiastic and successful devotees. Their example, in fact, is giving momentum to the swing of the pendulum. It began with the formation of the six subsidised light-aeroplane clubs and from their pioneer work has sprung the small army of private pilots and private owners. There are twenty-four private owner-pilots in Great Britain to-day, and two of them are women. They own and fly their machines as naturally as others own and run their cars. Two owner-pilots have done more than this; they have flown to India with no other preparations than the packing of a travelling bag. Every fine week-end the clubs cannot cope with the demands of their members. Their waiting lists of potential private pilots have sometimes to be closed. On fine Sundays they put up nearly as many hours in the air as there are in a day. As an instance we have the record of the London Club for one day's flying which amounts to 22 hrs. 45 mins. Till now these six clubs have been the limited centres for private flying, and consequently there has been a vast number of inactive enthusiasts. But these are shortly going to be served by the growing formations of other clubs springing up regularly in various parts of the country at their own expense. Without any subsidy their fine efforts are meeting with many financial difficulties, which has revealed a sound public spirit and generosity towards their ideals in local citizens, who, in some cases, have immediately provided the means for the purchasing of a machine or two. To name just a few of these clubs that are in various but definite stages of progress there are Norwich, Bristol, East Kent, Brighton and another in Scotland. Interesting suggestions that may probably mature have been made at Plymouth, Liverpool, Leicester, Nottingham and Swindon. This shows the concrete activity and potential activity in the movement and gives one a vision of what will inevitably evolve.

Now this new section of FLIGHT will be exclusively devoted



["FLIGHT" *Photograph*

UP INTO THE SUNSHINE: This aerial view of Swindon, taken from a D.H. "Moth," clearly illustrates the advantages of flying above the smoke and fog hanging over a town, instead of having to go through it as the more earthbound have to do.

to the interests of private flying. It will be a record of all its developments and help the private owner in every possible manner. It will be concerned with his or her movements, difficulties, experiences. It will advise and suggest about light aeroplanes, flying, and the many aspects that will arise. Above all it will strive to swell the ranks of private fliers and foster the progress of the novice to his maturity. In this new ideal of FLIGHT we invite the full co-operation of all who are actively engaged in private aviation. We ask them to keep us informed of all their movements, send any suggestions that may arise from their experiences, and help to build up a wealth of information upon which the future of private flying may be guided.

If you want to learn to fly, as all the younger generation should want to do to-day, to allay all the doubts, fears and difficulties that immediately present themselves to you and perhaps deter you for various reasons, take the first opportunity of visiting one of the six Light-Aeroplane Clubs, choosing, of course, a day that your knowledge of meteorology will assure you is fit for flying. This should not be inconvenient, for the six clubs are, geographically, well spread out over the country.

The aerodromes, together with the addresses of the Secretaries to whom all applications for particulars and entrance forms should be sent, are as follows :—

London Aeroplane Club, Stag Lane, Edgware, Middlesex : (Secretary, Royal Aero Club, 3, Clifford St., London, W.1).

Hampshire Aeroplane Club, Hamble, Southampton : (Secretary, Major Ross White).

Newcastle Aeroplane Club, Cramlington, Northumberland : (Secretary, Alexander H. Bell).

Yorkshire Aeroplane Club, Sherburn-in-Elmet, Yorks : (Secretary, J. F. Barnes, 39, Swan Arcade, Bradford, Yorks.).

Midland Aeroplane Club, Castle Bromwich, Birmingham : (Secretary, Major Gilbert Dennison, 22, Villa Road, Handsworth, Birmingham).

Lancashire Aeroplane Club, Woodford, Stockport : (Secretary, C. J. Wood, Oakfield, Dukinfield, Manchester).

Other clubs are rapidly springing into existence and soon the choice of the potential flyer will have a wide and in many respects a more convenient range. He may reasonably expect in the early future that if he lives in a town or near a town of any importance, that is in size, of course, for all towns are of importance to those who live in them, he will find a flying club as a part of its natural activities. But until then he or she can only realise their desire to fly at any of these six subsidised clubs unless their financial means will embrace the more costly training at the few existing commercial schools. The visit to the club will give a more personal contact with an aeroplane and its activities, and excite the enthusiasm and desire to emulate what others are so easily accomplishing. To peep into the mysterious cavity of a cockpit and to have someone consent to enlighten you on the functions of what you see will clear the impressions of the complexity that you thought was natural to flying an aeroplane. You will become partially familiar with the environment of an aerodrome and you will learn the more simple knowledge, the mere introduction to a new sphere.

Joining a Light Plane Club

When you are so enthusiastic about it that you are impatient to start flying at once this will be an impetus to discovering the way, the possibilities, setting the forms of procedure in motion, descending from the metaphorical heights to sheer materialism. What will it cost ? How long will it take?

This information is necessary to know, for, like most of mankind, your means and your leisure are limited. Your physical freedom is confined to week-ends and evenings. Now, the conditions and rules of the clubs are more or less similar. That is to say, that the clubs have laid down a definite object of bringing together as members of the club those persons interested in flying, and for the purpose of providing and maintaining aeroplanes for the use and instruction of members, all of whom must be British subjects. That is the only qualification that can bar anyone becoming a member. There is no social barrier whatever. We know what social freedom is in actual practice, for, to take one instance alone, in the London Club there are members of the Peerage and a taxi-driver and a plumber. There is no age limit either. In this same club a youth of sixteen and a sportsman of sixty-five have learned to fly solo. There is an age limit, however, set by the Royal Aero Club in granting certificates, but that does not stop anyone from learning to fly. If a youth under age likes to learn, he may do so with his parents' consent. A club consists of Ordinary and Associate members and is open to both sexes. There is no entrance fee. The subscription for Ordinary members is £3 3*s*. per year. They are members who desire to take instruction in flying, and those who, being qualified, like ex-service pilots, wish to hire the aeroplanes of the club. If an intended member is already a member of the Royal Aero Club, the subscription is then only £2 2*s*. per year. The subscription for Associate members is £1 1*s*. per year, and they are members who desire to support and encourage aviation by attendance at the aerodrome. They will be entitled to take passenger-flights when machines are available. The subscriptions are payable on election, and subsequent subscriptions on July 1, in each year. When members join on or after June 1, in any year, the subscription then payable by them shall cover the period to June 30, in the following year. A member wishing to resign from the club must give written notice to the secretary on or before June 30, in any year, failing which the subscription will have to be paid for the following year. The clubs hold the right to expel, caution, suspend, or ask a member to resign who has been charged with conduct that has not been approved by the committee holding an enquiry, at which the accused member is invited to attend.

The Question of Cost

Now, the cost of flying is perhaps the most vital consideration. The charge for instruction is £1 10*s*. per flying hour, and that includes the cost of oil and petrol, damage to the aeroplane and third-party insurance. The charge for solo flying, that is when the pupil flies alone after he is efficient and is already a pilot, is £1 per flying hour, and this, too, includes oil and petrol used, damage to machine and third-party insurance.

The minimum time allotted for instruction is eight hours and three hours for solo flying, which includes the hour required to pass the tests for the "ticket." The pupil of average capability should not take longer than that, although he or she may start as a mere novice to flying. But it does not matter how long is taken. If at the end of eight hours' tuition they are not yet confident with the machine they merely continue their course until they are. They are not hurried. They learn at their own rate, just accordingly as their intellect and confidence naturally accomplishes the task. Many take much longer than others, but that is natural in all spheres of learning. The fundamental difference in this sphere is that any lack of comprehension and consequent slowness in progress is not to the disadvantage of the pupil, except monetarily. The longer a pupil takes the more it costs—at the rate of £1 10*s*. per hour. It does not matter to the club in the least. It perhaps hinders other pupils who are following, but only through the monopolising of the machine and the instructor. But there is no such thing as leaving a slow pupil behind to jog along as best he can, as in mass education. All instruction is essentially individual. If, then, we assume, as it is generally assumed, through the results of experience, that eight hours 'instruction and three hours' solo flying will make a member a pilot, the cost will work out at £18 3*s*., which includes the subscription fee of £3 3*s*., but for every pupil who gains an aviator's certificate, the Air Ministry allows the club £10, and the club, in turn, shares this with the successful pupil, so that he gets £5 back, which reduces his expenditure to £13 3*s*. for learning to fly.

This must be regarded as an absolute minimum figure. It is a figure to which he can aspire. To what extent he falls foul of it depends upon his progress, his adaptability to the art of flying.

Allowing for all disadvantages that may crop up during training, experience has shown that the total cost to a member on an average is about £20. The minimum time for which a machine can be hired is half-an-hour, and before any flight the fees must be paid to the instructor or whoever is at the club for that purpose. This means, of course, that the lowest cost of a flight for an Associate member is 15*s*. It is very important that a member should know exactly how the responsibility for damage to the machines concerns him. When flying under personal instruction the club accepts responsibility for any damage to the machine and legal liability for damage to third parties unless the accident is caused wholly, or in part, by any wilful breach of the rules of the club. Third parties are those concerned in a disaster who are not in the machine, such as spectators. When flying solo a member is responsible for any damage done, and before the machine is hired a written undertaking must be given which exempts the club and its employees from all liability in the case of an accident and its effect on the member. If a member is under 21 years of age the undertaking must have the additional consent in writing of the parent or guardian of the member. When a

member has duly survived the procedure of enrolment which consists chiefly of revealing his full name and address, swearing his British nationality and faithful allegiance to the rules governing the club, he receives a badge which will be distinctive of the class joined, that is, Ordinary or Associate, and be valid for one year. This badge must be shown to the officials before a flight is desired, which formality merely safeguards the use of the club to its members and their friends. Only the Ordinary members are entitled to receive instruction in flying and to hire machines for solo flying, whilst for this latter purpose the member must possess an Air Ministry's "A" or "B" certificate. The Associate members can only hire machines for passenger-flying subject to the prior claims of instructional and solo flying, and at the rate already given, £1 10s. per hour.

Physical Fitness

It is very advisable that a potential member should ensure that he is physically fit before he goes to the expense of learning to fly, otherwise he may find that although he has become a competent pilot he cannot obtain a certificate. It is also advisable for his own safety. The medical examination is nothing very alarming or exacting; it does not call for a fine physique or strength, for the art of flying does not call for these. It is really a test of the nervous system. Apparently any nervous disorder and its various aspects like shell shock, brain fever, severe and persistent headaches, neurasthenia, fits, loss of consciousness, must not be present in one's medical history or any illness or disability during the past ten years. There must be a freedom from any abnormality or intemperance. According to the common experience anyone of normal health and physique need have no fear of passing. This completes a summary of the fundamental conditions as they prevail in the light-aeroplane movement. It must be seen that taking everything into consideration there are no reasons why anyone of ordinary means and ordinary leisure, of commonplace capability and adaptability should fail to realise their desire to learn to become their own pilot. There is nothing great to be attained. Youths became pilots under far more exacting and difficult as well as dangerous conditions in a few hours during the war. Some were flying on active service before they had done eight hours' flying all told, and they must have learned all the tricks of the trade through necessity. The common actions of flying are extremely logical and simple. The chief thing to accomplish is the adaptability to the environment of the air. It will help the more nervous type of pupil to do a few hours passenger flying before he starts the course; he will learn to fly comfortably then and turn his mind serenely to controlling.

The next natural step of owning a light aeroplane is perhaps, at the moment, a more difficult matter. They are cheap to run but not exactly cheap to buy, but they are bound to come down to a more favourable price in the immediate future, for as the clubs turn out private fliers each of these will increase the demand for private machines. So that every new member joining for the primary purpose will be helping his own chances of buying a machine. Having become familiar with these more prosaic details concerning the movement the potential club member will now be anxious to know how he or she is trained, and as each club pursues its own method to some extent our series of articles on the activities of all the clubs, beginning in this issue with those of the London Club, must be followed.

PRIVATELY OWNED AIRCRAFT REGISTERED IN GREAT BRITAIN

The Meaning of Identification Letters

FOLLOWING is a list of the aeroplanes privately owned and registered in Great Britain. Almost every day sees additions to this list, so that we cannot guarantee it to be entirely up to date, but as far as possible aeroplanes recently registered have been included, as will be evident from the fact that dates of registration as recent as March 22, 1927, are included.

For the benefit of those not already familiar with the system in force concerning identification of civil aircraft the following brief explanation may be of assistance. Under the International Air Regulations, each country is given an initial letter, which must be painted on the sides of the fuselage and on the top and bottom of the wings of every civilian aircraft registered in that country. In the case of Great Britain this initial letter is *G*. (For France it is F, and for Germany D.) The initial letter is followed by four others, separated from it by a short horizontal line. It is stipulated that one of the four letters must be a vowel. In the case of Great Britain, the vowel E was chosen, and comes first after the horizontal line, or dash, the other letters following in alphabetical order.

The first British aircraft to be registered therefore was given the letters G-EAAA, the next one G-EAAB, the next G-EAAC and so on until the end of the alphabet, as far as the last letter was concerned. The last machine (the 26th) in this series was thus identified by the letters G-EAAZ. The new series commenced with G-EABA, and was followed by G-EABB, and so forth. The third series commenced with G-EACA, the fourth with G-EADA, and so on until recently we have reached G-EBQM. Any of our readers who is arithmetically minded can thus work out for himself how many British civilian aeroplanes were registered before G-EBQM. (We offer no prize for the solution!) From the foregoing it will be clear that the identification letters of civil aircraft form a rough and ready guide to the age of a machine. Thus if one sees an aeroplane with the letters G-EAAF, it is obvious that this is a fairly old machine, while one bearing the letters G-EBNL is of fairly recent date.

In the accompanying list the machines are arranged in alphabetical order according to the name of the owner, so that it becomes a simple matter to find out what particular make of machine, and its identification letters, is used by any particular private owner.

From this list it will be seen that to Dr. Whitehead Reid belongs the honour of having registered the first privately-owned machines in Great Britain after the war, his Avro having been registered on March 31, 1922, and his S.E. 5A on October 20 of the same year. One machine appears to have been

British Private Owners and Their Machines

Name of Owner.	Type of Machine.	Identification Letters.	Date of Registering.
Hon. Lady Bailey	D.H. Moth	G-EBPU	1.1.26
Flying Officer Boyes	D.H. 53	G-EBHZ	23.7.25
Pilot-Officer Carr	B.E. 2e	G-EANW	2.7.26
Flt.-Lieut. Comper	C.L.A. 3	G-EBMC	30.7.25
Felixstowe Club	C.L.A.4	G-EBPB	17.8.26
Sqdn.-Ldr. de Crespigny	Bristol Scout	G-EAGR	8.3.26
Hon. G. Cuncliffe	D.H. Moth	G-EBPM	18.11.26
Mrs. Eliott Lynn	S.E. 5A	G-EBPA	30.7.26
Halton Aero Club	"Mayfly"	G-EBOO	23.6.26
H. E. Hamer	D.H. Moth	G-EBNX	22.4.26
Leslie Hamilton	Martinsyde F. 6	G-EBDK	11.7.25
Leslie Hamilton	Vickers "Viking"	G-EBED	27.7.26
Kenneth Hunter	S.E. 5A	G-EBQK	19.3.27
N. H. Jones	A.N.E.C. 2	G-EBJO	28.9.26
David Kittel	D.H. Moth	G-EBMU	11.12.25
B. S. Leete	D.H. Moth	G-EBKU	6.11.26
Nigel Norman	Avro 548	G-EBPJ	25.10.26
Lord Ossulston	D.H. Moth	G-EBPT	1.12.26
R.A.E. Aero Club	Hawker "Cygnet"	G-EBJH	26.1.26
R.A.E. Aero Club	R.A.E. "Sirocco"	G-EBNL	26.1.26
Dr. Whitehead Reid	Avro 548	G-EAFH	31.3.22
Dr. Whitehead Reid	S.E. 5A	G-EBCA	20.10.22
Sir John Rhodes	D.H. Moth	G-EBNM	19.2.26
Tho. Richardson	Avro 548	G-EAAL	25.5.26
Alan Smith	English Electric "Wren"	G-EBNV	9.4.26
Flt.-Lieut. Soden	Boulton and Paul P. 9	G-EBEQ	10.9.26
N. T. Stack	D.H. Moth	G-EBMO	6.11.26
H. R. D. Waghorn	S.E. 5A	G-EBPD	31.8.26
D. A. N. Watt	Sopwith "Grasshopper"	G-EAIN	17.8.25
D. A. N. Watt	S.E. 5A	G-EBOG	5.6.26
D. A. N. Watt	Sopwith "Scooter"	G-EACZ	17.8.26
Air Commodore Weir	D.H. 51	G-EBIQ	3.4.26
Flying Officer Wheeler	S.E. 5A	G-EBQM	22.3.27

registered earlier, namely the Austin "Whippet," now owned by the Midland Aero Club. This machine formerly belonged to Flt.-Lieut. Soden, but it seems likely that the date of registration (February 7, 1921) refers to the original registration of the machine by the Austin Company.

MACHINES OF THE LIGHT AEROPLANE CLUBS

In addition to the aeroplanes owned by and registered in the names of private individuals, a number of machines are in use by the various subsidised Light Aeroplane Clubs. Details of these are given below.

The London Aeroplane Club

D.H. Moth, G–EBLI	Registered	May 29, 1925.
D.H. Moth, G–EBNY	,,	April 22, 1926.
D.H. Moth, G–EBMF	,,	April 22, 1926.
D.H. Moth, G–EBKT	,,	February 4, 1927.

The Lancashire Aero Club

Five machines are registered in the name of this club, namely :—

D.H. Moth, G–EBLR	Registered	June 22 1925.
D.H. Moth, G–EBLV	,,	June 22, 1925
D.H. Moth, G–EBMQ	,,	November 27, 1925.
Avro "Gosport" G–EBNF	,,	December 24, 1925.
Avro 548, G–EBOK	,,	June 12, 1926.

The Yorkshire Aeroplane Club

But two machines are registered by this club, both being De Havilland Moths. Both were registered on June 22, 1925, and one carries the identification letters G–EBLS, and the other G–EBNN.

The Midland Aero Club

has three machines, as follows :—

D.H. Moth, G–EBLT	Registered	June 22, 1925.
D.H. Moth, G–EBLW	,,	June 22, 1925.
Austin "Whippet," G–EAPF	,,	February 7, 1921

The Newcastle Aero Club

has two Moths and an Avro 548, the identification letters and dates of registration being :—

D.H. Moth, G–EBLX	Registered	June 22, 1925.
D.H. Moth, G–EBLY	,,	June 22, 1925.
Avro 548, G–EBPO	,,	November 23, 1926.

The Hampshire Aeroplane Club.

has two Moths, G–EBOH and G–EBOI, both of which were registered on June 8, 1926.

THE LONDON AEROPLANE CLUB

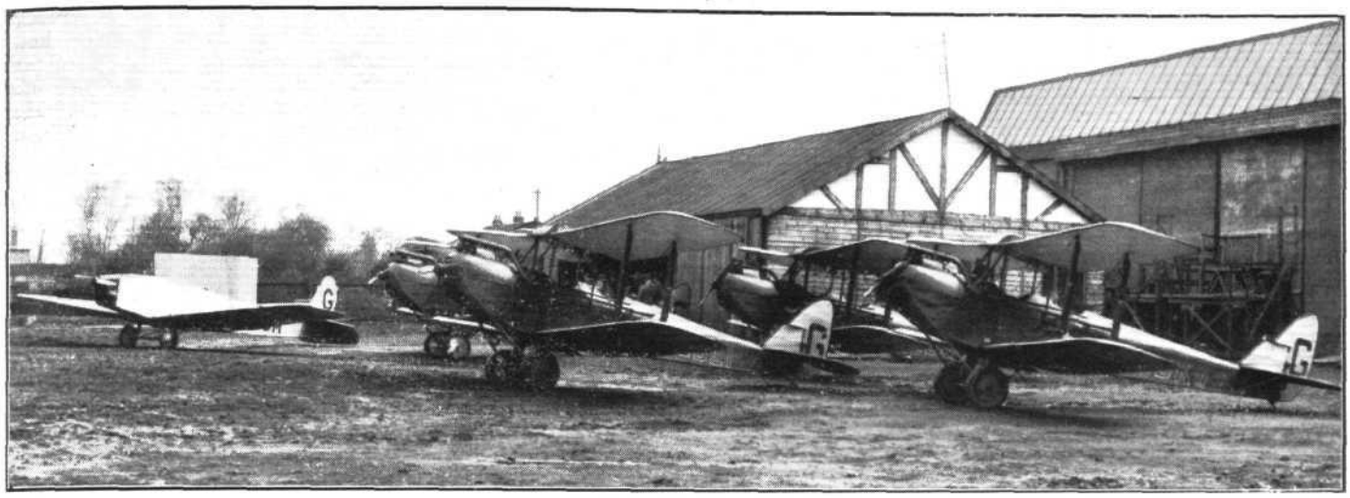
WHEN the new light aeroplane movement was begun, the Air Council selected the Royal Aero Club to carry out the scheme for the London district, and the latter set up a committee for this purpose comprising, then, Lieut.-Colonel Sir Francis K. McClean, Wing-Commander T. O'B. Hubbard, Maj. R. H. Mayo, Col. the Master of Sempill, and Capt. C. B. Wilson. The new club was officially opened by the Under-Secretary for Air, Sir Philip Sassoon, on August 19, 1925, and he made the first flight in one of the two "Moths." The instructors chosen were Capt. F. G. M. Sparks and Mr. G. T. Witcombe. The very first member to receive instruction was appropriately a lady, Mrs. Eliott Lynn, who has since become very well known for her flights in many parts of the country as a private owner-pilot. She is one of the 24 private owners, and possesses an S.E.5a machine. Within a month of its inauguration the club had completed 100 hours' flying, and no less than 60 members had received instruction, among whom were many who had completed seven hours' flying, and who were in eager competition for their certificate. After this preliminary experience some interesting statistics were noted for the month's flying. No trouble had been found with the "Moth," and the petrol consumption of the "Cirrus" engine, including all incidental uses of petrol as for cleaning, running the engine in tests, and that wasted worked out at 352 galls. to the 100 hours, or 3·5 galls. per hour. The oil used amounted to 16 galls., four of which were wasted during the cleansing of the sumps on several occasions, so that the actual consumption figure was 12 galls. for the 100 hours' running, or about 1 pint of oil per hour.

The honour amongst the enthusiastic members to be the first in the race for the Royal Aero Club's certificate went to Mr. G. N. Warrick within two months of the commencement, and he was followed by Mrs. Eliott Lynn, who accomplished the tests after an interesting adventure which only proved conclusively her skill and confidence. Ascending for the 6,000-ft. altitude test, she became lost in a mist and successfully made three forced landings on strange ground before finally alighting safely at Slough. The next day the instructor, Mr. Witcombe, flew the machine back.

["FLIGHT" *Photograph*

AT THE LONDON AEROPLANE CLUB : Captain F. G. M. Sparks, Chief Instructor of the Club.

The club started with two "Moths" which were provided by the Air Ministry's grant of £2,000 for equipment. As the membership rapidly increased, the necessity for more machines became urgent and the Duke of Sutherland, who has contributed so often to aviation interests, presented the club with another "Moth," Next, the members themselves raked amongst the ashes of their own exchequers and duly produced another of these machines called the "Moth." So this made four. But then the club is the happy possessor of Comdr. H. E. Perrin as its genial and zealous secretary, and he does not exactly fill any post in a merely nominal capacity. One day he observed a lonely and neglected little Bristol "Brownie" apparently doomed to the ignominy of senile decay in the Bristol Company's aerodrome, and at once he took pity on it and felt an urgent desire to protect it. True, it was not a "Moth," but it was an aeroplane, and he sympathetically reflected that it was an aeroplane going to the dogs instead of the London Aeroplane Club. They, he thought kindly, would at least give it a chance of a more noble death. So he walked into the office and there he met another of those altruistic creatures who do not crow



["Flight" *Photograph*

MACHINES IN USE BY THE LONDON AEROPLANE CLUB: These are four de Havilland "Moths" with "Cirrus" engines, and a Bristol "Brownie" with Bristol "Cherub" engine

man out of existence, and he apparently drew such a heart-rending picture of the fate of the lonely little orphan that he was told to take it away. Thus a stranger duly entered the clannish domain of the "Moth" family at Stag Lane. How he was received we do not know, but we can guess. He has survived until to-day, and is apparently going to Bournemouth with the family for the Easter, so there must be some amicable understanding. It seems he is only a visitor to the club, but one of those visitors who can stop until they get homesick. It seems, too, that he still has certain rights left, for although he is a "Brownie" he is a silver-grey, whereas his hosts are mostly brownies.

Thus the club is rich with five machines, in which good fortune it is only equalled by the Lancashire Club, although this number is not adequate for the ever-increasing demand. While the number of instructors is limited it is no doubt sufficient for instruction purposes; but for the demands of those who have learned to fly and want a machine with which to keep in practice, and for mere passengers too, an unlimited fleet of machines is required.

Since the flying club began in August, 1925, various local records have been made. The flying record for one day has reached 22 hrs. 45 mins., and for a week, 82 hrs. For one month's flying the highest record is 206 hrs. 15 mins. The number of flights made in one day amount to 60. During the whole period of twenty months' flying since August, 1925, 50 pilots have been trained, 39 *ab initio*, the other eleven having had various flying experience previously, some being ex-service pilots. Up to March 31, 1927, the total of flying hours amounted to 2,202 hrs. 45 mins. It is significant of the simplicity and adaptability that even novices discover in becoming a pilot that no pupil who has seriously joined the club for the express purpose of learning to fly has failed. It has never proved too exacting for their nerve or too complex and skilled for their intellect, however ignorant of aeronautics it might be.

The leading spirit in the daily routine of flying is the Chief Instructor, Captain Sparks. He has an incurable and infectious optimism which immediately calms and assures the most diffident of pupils. He is possessed with an almost whirlwind energy, and this, together with his fluent and arresting conversation, makes all who come in contact with him unusually alert and active. It is impossible to have the slightest lack of confidence in him as an instructor or imagine him in any difficulty in the air. He is, perhaps, an unconventional pilot instructor, for so many of them are very taciturn and almost dour, due, no doubt, to the long strain of instructional flying. He is a pilot of long experience, having

["Flight" *Photograph*

THE LONDON AEROPLANE CLUB: This group of members includes, from left to right: P/O. P. G. Lucas, H. G. Riches, A. G. Wallis, Captain F. G. M. Sparks, Major K. M. Beaumont, G. Terrell, W. Beckett, K. V. Wright, A. R. Ogston, B Waugh, G. Gibbons (Apprentice engineer), W. Moss (Engineer).

been flying since December, 1915, when he joined the R.F.C. After the war he took up joy-ride flying, and he continued with that to the time he joined the London Club in 1925; flying for the Welsh Aviation Co., the Berkshire Aviation Co., and also forming a company himself. He has taken up 57,000 people in his varied career. Like most of the club instructors, he is a member of the R.A.F. Reserve, and therefore used to the same school of instruction; but, nevertheless, each instructor essentially brings to bear his own ideas and methods on instructing.

Captain Sparks is an instructor who is also a student of the psychology of his pupils. He believes in an infinite amount of tolerance rather than impatience and forceful methods as the inevitable means of getting the best out of a pupil. He knows that the fundamental necessity of teaching is instilling confidence in the pupil himself, in the machine and in the instructor, and he knows that this can only be done by personality. Impatience and annoyance will not help a pupil—it will merely further confuse him. He endeavours to put himself into the pupil's position and try and visualise the difficulties in his way, and by this he knows exactly the course of explanation and guidance to take. He never lets a pupil know too much about himself and his faults. These he takes one at a time and follows a process of elimination. When he has cured one fault he does not point out all the others that are partial to the pupil; he lets him go away with the confidence that his small progress has instilled, and when he comes again he comes with a zest, and not discouraged by the many more difficulties facing him. It is a testimony to Captain Sparks' work that he has succeeded with all who h ave come under his charge, and, strange as it may seem, some of them have had a great lack of confi dence for pupils who want to fly. He has had them declare that they never would succeed because they were afraid to look down from heights—a common illusion about flying—and he has had to assure them that, like most people, he himself cannot climb to a high pinnacle and look down without being giddy.

The two experiences are not to be compared. The cockpit engulfing one's body gives a sense of security which the yawning space surrounding one on a church tower or similar pinnacle does not. Then there is nothing with which to compare your height from the ground when flying. Another general dislike of the pupils is the coming down, the sudden shutting off of the engine, the acute silence after the long roar, and the glide through space. As Capt. Sparks points out, it is almost incredible that anyone can dislike that smooth feeling of gliding through space in a deep silence, which is one of the most delightful sensations in flying. It is exhilarating. It is a sort of wonderful relief after the vibration and noise. The point is that that solid roar gives the novice a solid sense of security, and when it suddenly goes the feeling of floating buoyancy is not so reassuring.

It is inevitably soothing to his ears and delightful to experience if he is certain that gliding is quite as safe as when the engines were full on; but it takes a little time in the air to acquire that belief. Capt. Sparks has illustrated to them that the ailerons and elevators give the same control over the machine when gliding; but it is only experience that will convince them. He allows them to progress according to their own aptness. Some of his pupils have merely had air experience on their first flight, others have had straight flying with the aid of horizon, whilst others have even gone beyond that stage and commenced right and left turns. He likes them to fly and manœuvre with the help of the horizon rather than rely on the instruments which can easily puzzle them by their lagging. One of the lessons that he insisted on as part of his instruction curriculum was spinning. It is his rule that when every pupil takes his solo flight he or she is fully capable of putting the machine into a spin and coming out of it, and also quite capable of dealing with engine trouble. He is extremely cautious, and, although many pupils are ready for solo flying after less than eight hours' instruction, he never allows anyone to take the slightest risk. It is safe to say of him that, through the strict principles that govern his instruction, he has never the slightest qualms when a pupil flies alone. Experience has amply justified his method.

Capt. Sparks has put in a tremendous amount of hard work for the London Club. Since November, when his second instructor, Mr. S. L. F. St. Barbe, unfortunately crashed, he has been instructing alone all day and receiving occasional help in the evenings from the instructors of the de Havilland Reserve School, adjoining the club. He has been averaging five hours a day instruction for seven days a week. Mr. St. Barbe has now recovered and been passed by the Medical Board as fit for flying, so that now instruction will be resumed again by him. His crash is the only accident that has happened in the history of the club—the engineer, Mr. Michie, being killed. The members subscribed for a stone to be put over his grave. The engineer is now Mr. W. Moss, who has also had long experience with aircraft and served during the war as an R.A.F. pilot.

The London Club suffers from the state of its aerodrome. At times it is very difficult to know whether it is a seaplane base or an aerodrome. The "Moths" would have a better chance of getting off if fitted with floats! The shed only holds two "Moths" folded and the single-seater Bristol "Brownie." The other three "Moths" are housed in the private owners' single sheds when not hired. There are six of these single sheds, which are very strongly built, contain a bench and vice, and give plenty of room for a "Moth" folded. They are let at £1 a week to private owners, which also covers care and maintenance of the machines. Six more are being erected shortly.

The future of this club is quite assured. Capt. Sparks feels that the light-aeroplane movement has justified itself There is never a lack of pupils; and with wider facilities the country would have an army of reserve pilots within a very short time.

The club is now controlled by a committee who comprise Lieut.-Col. Sir Francis K. McClean, Col. the Master of Sempill, Maj. R. H. Mayo, Capt. C. B. Wilson, Sqdn.-Ldr. M. E. A. Wright, Maj. K. M. Beaumont, the Hon. Lady Bailey, and Mr. N. H. Jones, with Comdr. H. E. Perrin as secretary.

PROPOSED FORMATION OF THE BRISTOL LIGHT 'PLANE CLUB

ON April 7, a meeting was held in Bristol by the Bristol and Wessex Aeroplane Club with the object of drawing interest to the formation of the club and its proposals. The acting secretary, Mr. C. S. Clarke, presided, and he first read a message of sympathetic interest towards the light aeroplane movement from Sir Samuel Hoare. Next he mentioned that there were already 85 members, and that the difficulty of finding aerodrome space had been solved for them by the generosity of Mr. George Parnall, who had kindly offered them the use of his aerodrome at Yate with the necessary shed accommodation. The Duke of Beaufort had consented to be the patron of the club, and although the office of president had not yet been filled, the following had accepted invitations to become vice-presidents: Sir Thomas Inskip, K.C., M.P. (Solicitor-General); Sir Beddoe Rees, M.P.; Sir G. Stanley White, Bart.; Mr. H. J. Thomas; Mr. George Parnall; and Maj. Egbert Cadbury.

Col. F. G. L. Bertram (Deputy Director of Civil Aviation) said that the six light-aeroplane clubs made 14,250 flights, equalling 5,780 hours, during 1926. Other clubs were in the course of formation in other parts of the country. He could not hold out any hope of the Bristol Club receiving any financial assistance from the Air Ministry, but he could assure them of the Air Ministry's willingness to give any technical advice or aid. He thought their greatest trouble would be financial, and suggested an appeal to the people of Bristol not to let the pioneers by sea and land in olden days lag behind in helping the air adventurers of the future.

Mr. George Parnall said that he thought there was at least one machine at Yate that might possibly be of service to the club, and in addition, if he could not put more than one-sixth towards the cost of a machine, he would certainly be pleased to contribute that to help the club. He was sure that everyone connected with Yate aerodrome would also do all that was possible to assist too. He pointed out that a club in Bristol would have been formed long ago but for force of circumstances, and he had no doubt that the citizens of Bristol would now rally round.

A member of the audience asked the cost of a machine, and when activities would possibly commence, and the chairman replied that the type popular with the clubs cost £730 complete, and that the date of starting was purely a matter of finance. Capt. Broad, accompanied by Mr. John Yoxall, the chief photographer of FLIGHT, flew down from

["FLIGHT" *Photographs*

THE BRISTOL AND WESSEX AERO CLUB: For the meeting held by this club last week, Capt. H. Broad flew down to Bristol to help in arousing interest in private flying, his D.H. "Moth" being on view on the steps of the Victoria Rooms. Our photographs show: (1) The "Moth" being towed from Filton aerodrome to Bristol, (2) through the streets of Bristol, (3) being pushed up the slope to Victoria Rooms, and (4) on view, with wings spread.

London in a " Moth " in 1 hr. 15 mins., and the machine was publicly exhibited outside the Victoria Rooms, where the general meeting was held, after being wheeled through the streets of Bristol. Capt. Broad also spoke at the meeting and pointed out that the cost of running and maintaining the " Moth " was 2*d*. per mile. He suggested that the financial problem might be overcome by holding an annual pageant of light-aeroplane flying. In Manchester, £400 was raised by this means. He said that it was not so difficult to learn to fly as was popularly imagined, and it was an inexpensive hobby.

On his return flight to London, Capt. Broad covered the distance, 117 miles, in 1 hr. 10 mins., flying low most of the way to "give" our photographer some pictures.

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LIGHT 'PLANE CLUBS

London Aeroplane Club

UNFAVOURABLE weather conditions interfered with the flying during the past week, and the total time was 10 hrs. 45 mins.

Dual Instruction.—Miss O'Brien, W. Beckett, I. H. McClure, Capt. H. Spooner, A. C. Pearson.

Solo Flying.—O. J. Tapper, W. Beckett, A. C. Pearson, M. L. Bramson, A. F. Wallace, R. Sanders Clark, Capt. H. Spooner, Miss O'Brien, E. D. Moss.

Passenger Flights.—J. L. Goddard, Miss Mackintosh.

Pilot Instructor.—Mr. S. L. F. St. Barbe has now resumed his duties as Pilot Instructor.

During his four months' absence the De Havilland Aircraft Co., Ltd., kindly allowed their pilot instructors to assist. The club records its grateful thanks to the De Havilland Aircraft Co., Ltd., and to their pilots, Capt. A. S. White, Capt. C. D. Barnard, and Flying Officer R. W. Reeve, for their help.

The Hampshire Aeroplane Club

REPORT for week ending April 8 :—In spite of the fact that it rained continuously on three days of the week and also that the club is now operating with only one " Moth," the flying time managed to reach the total of 9 hrs. 55 mins., made up as follows :—Instruction flying, 6 hrs. 20 mins. ; solo flying, 3 hrs. 15 mins. ; test flights, 20 mins.

The following members had instruction :—Lieut. Oliver, R.N., the Hon. H. R. Grosvenor, Messrs. Shepherd, Kerry, Everett, Stokes, Dolson, Clifton, Nicholson, Ash, Keeping, Dickson, Bowen, Courtney, Rumble, Farmer, and Jayne.

The soloists were :—Don Juan del a Cierva, 2 hrs. 10 mins. ; Lieut. Oliver, 25 mins. ; Nicholson, 15 mins. ; Ash, 10 mins. ; Bowen, 10 mins. ; and Keeping, 5 mins.

Last week-end we received a visit from four members of the London Flying Club. They were Capt. Kittell with Miss Davison in Moth G-EBMU and Mr. Richardson with Mr. Brown in a Renault-Avro, and they dropped in on their way to the Isle of Wight. These visitors lunched in Hamble, explored the village, and then continued their journey across the Solent.

Our first chairman, Mr. O. E. Simmonds, who at the general meeting last week strenuously sought to be allowed to retire from the committee after a year's most successful and arduous work, but who was at length persuaded to remain on the committee, has now handed over the reins to his successor, Mr. R. J. Parrott, who was unanimously elected to the chairmanship. Mr. Parrott has devoted his interests to aviation ever since he joined Mr. A. V. Roe in the pioneer days, and he is, of course, now general manager of the Hamble factory of A. V. Roe and Co., so we feel sure that the welfare of the club is in capable hands.

The pageant is developing into something even bigger than we had hoped, and it will be a very valuable asset that Mr. Simmonds, who is chairman of the Pageant Committee, can now devote the whole of his organising ability to pageant affairs.

The Newcastle-upon-Tyne Aero Club

REPORT for week ending April 10 :—Flying was possible only on Saturday, LX having been under repair until that date, and a strong gale blew all day on Sunday. Total time, 6 hrs. 5 mins. Dual, 3 hrs. 15 mins. ; solo, 45 mins. ; " A " pilots, 1 hr. 45 mins. ; joy-ride, 5 mins. ; test, 15 mins.

The following members flew under instruction : Mrs. Heslop, Mr. Twine, Mr. Hayton, Mr. Turnbull, Mr. H. Ellis ; Mr. Turnbull was the only soloist. " A " pilots : Mr. R. N. Thompson, Mr. W. Baxter Ellis. With Mr. Lawson : Mr. H. Ellis. Miss Parkin had a joy-ride with Mr. Parkinson.

Mr. R. H. McIntosh, flying an Imperial Airways D.H.50, called at the aerodrome on Thursday for petrol. His passenger was Mr. Bagnall.

Midland Aero Club

REPORT up to April 8 :—Owing to continuous rain and high winds, it has only been possible to do about 5 hrs. flying.

The following members took dual instruction with Capt. McDonough, E. P. Lane, S. H. Smith, C. H. James, R. L. Jackson ; and Messrs. R. L. Jackson and E. J. Brighton flew solo.

The club will be open throughout Easter, and it is hoped that the weather will be better, to enable good flying to be done.

The Lancashire Aero Club

REPORT for week ending April 9 :—Total flying time, 33 hrs. 45 mins., made up as follows :—Dual with Mr. Brown : Messrs. Caldecott, 1 hr. 55 mins. ; Ward, 1 hr. 45 mins. ; Cohen, 1 hr. 10 mins. ; Mulder, 1 hr. 5 mins. ; Gerrard and Torres, 50 mins. each ; Hartley, Serck and Miss Emery, 4 mins. ; Nelson, 30 mins. ; Anderson, Stonex, Haynes and Miss Baerlein, 20 mins. each ; Michelson, Collinson, Ruddy and Fallon, 15 mins. each ; Heya, 5 mins.

Solo : Miss Brown, 4 hrs. ; Messrs. Costa, 2 hrs. 25 mins. ; Twemlow, 2 hrs. 15 mins. ; Abdala, 2 hrs. 15 mins. ; Gattrell, 45 mins. ; Birley, 30 mins. ; Wade, 30 mins. ; Forshaw, 25 mins. ; Dickinson, 20 mins. ; Goodfellow, 10 mins. ; Lacayo, 10 mins. ; Nelson, 10 mins.

Joy-rides.—With Mr. Lacayo : F. Scholes, 1 hr. 35 mins. ; Mrs. Lacayo, 25 mins. ; Miss Gramchain, 10 mins. With Mr. Twemlow : Mr. Anderson, 2 hrs. With Mr. Costa : Mr. Anderson, 20 mins. ; Messrs. Dickinson, Abdalla and Gerrard, 15 mins. With Mr. Brown : Mr. Scholey, 10 mins. ; Mr. Castex, 10 mins. With Mr. Cantrill : Mr. and Mrs. Westcott, 10 mins. each. With Mr. Michelson : Miss Michelson, 20 mins.

Test flights : 1 hr. 35 mins.

Weather has been very unsettled, with no flying at all on two days, one of which was Saturday.

During the week Mr. Gattrell and Miss Brown completed their tests for the " A " licence. Miss Brown is our first lady pilot to get her licence, and has been putting up some very nice aerobatic displays lately, looping, rolling, and generally throwing the aerofoils around with excellent judgment. She was entered by telegram for the Bournemouth Oaks as soon as she had passed her tests, but the entry has been refused by the Royal Aero Club as it was a day late. This is a pity from every point of view, as Miss Brown goes to Australia with the All-England ladies' hockey team at the end of the month, and will therefore not be able to represent the club at all this year. Mr. Scholes will represent us in the instructors' races, and Mr. Twemlow, the well-known racing motor-cyclist, in the *ab initio* pupils' races.

With reference to Newcastle's recent congratulations to London on their record flying week, we believe London are now entitled to congratulations on another score, that of having done 1,000 hrs. flying already during the second year of the Air Ministry agreement. According to the weekly figures published in FLIGHT, the hours flown by the clubs since July 31 last up to the beginning of this month are as follows : London, 1,051 hrs. 30 mins. ; Lancashire, 724 hrs. ; Newcastle, 597 hrs. ; Hampshire, 333 hrs. Yorkshire and the Midlands cannot be given exactly as both have missed reporting on several weeks, but both appear to be close together in pursuit of Hampshire. We will join in friendly rivalry with Newcastle, who were runners-up to London for the first year, in trying to beat that 82-hr. record—always assuming that London don't go and push it up to 100 hrs. before we can get there !

The Yorkshire Aeroplane Club

REPORT for the week ending April 10.—The total time flown for the week was 3 hrs. 55 mins., consisting of solo, 30 mins. ; dual instruction, 2 hrs. 10 mins. ; tests, 1 hr. ; and joyrides, 15 mins.

Messrs. Mann and Norway flew solo, while Messrs. Carter, Mann, Swift, Norway, Wilson and Ling flew under instruction with Mr. Beck. Two more prospective members, Messrs. Lang and Parker, were given joyrides.

On Tuesday (the 5th inst.) Mr. G. R. Beck took up his duties as club instructor in the place of Capt. West, who has now resigned and has gone to Brough for his course of Reserve training. Mr. Beck has been engaged in joyriding for the past four or five years, the last two of which have been spent with the Berkshire Aviation Tours.

On Thursday afternoon a D.H. 50J Imperial Airways machine, piloted by Capt. R. H. McIntosh, landed at the aerodrome to fill up with " B.P." before proceeding on its way to the Croydon air port. In addition to his mechanic he had only one passenger on board.

Flying will take place daily during the holidays, including Easter Monday, April 18. The weekly day off when the club will be closed will be on Tuesday, 19th inst. The club staff Easter holidays will be taken on Monday and Tuesday of the following week, so that there will be no flying on the 25th and 26th inst., the normal routine being resumed on the 27th inst.

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Australian Aero Club (N.S.W. Section)

To Mrs. Bryant, a member of the N.S.W. Section, Australian Aero Club, comes the distinction of being the first woman to fly solo in an aeroplane in Australia. Mrs. Bryant's first solo flight was made early in February last, when during two weeks' practice she put in a total of 1 hr. 50 mins. solo flying.

There were at the end of February six members—including Mrs. Bryant—of the club flying solo, while three other members, Messrs. C. W. Perry, W. J. C. Pennell, and J. R. Palmer have succeeded in obtaining their " A " licences. During the same period five new pupil members and 34 ordinary members have joined the club.

Mr. S. L. Tyler, a member of the club who recently made a flight with his brother from Sydney to Melbourne and Adelaide and back, wrote to the club president telling of his experiences on this trip, as follows :—

" I found the inland atmosphere always rough. I found a fault in my landing was that I came in too fast, the reason of this being the long duration in the air at high speeds and flattening out to slow speed gave me an uneasy feeling ; however, I soon overcame this. At Avenel I did rather a silly thing.

Being too lazy to walk any distance, I chose the race-course in which to land ; this was quite large enough, but there were a number of trees scattered about it. I came down between them with a cross wind. The ground was very hard, like concrete, and if the machine had swerved on the ground I would certainly have hit a tree ; as it was, I had to use the rudder to avoid getting too close to a tree prior to stopping. There are a sufficient number of official marked landing grounds between here and Melbourne, and it is really not necessary for one to resort to grounds of this nature for landing.

" I found in the hot weather—and it was hot—that I had overloaded the machine, so to speak. I had a tremendous amount of luggage aboard, and I had to watch things very carefully when taking off at nearly all the landing spots, as they were rather small and nearly all surrounded by big trees. I think the biggest trouble, as stated in the beginning, was the tendency to land too fast after being in the air for a long time, and the tendency to lose height very quickly instead of taking a more gentle glide ; the more easy glide gets one used to the slower speeds before getting too close to the ground.

" Last but not least, landing away from home is a totally different thing to landing at Mascot 'drome, where one knows all the bumps and the condition of the ground and can pick out and avoid all the bad spots ; it is a different story when landing on a ground one does not know anything about."

Mr. Tyler is a well-known business man in Australia, and has taken up flying as a hobby, having practically taught himself to fly. He bought an old dismantled machine and had it reconditioned, then, with the help of friends who could fly, investigated the mysteries of flying for himself. The trip previously referred to was accomplished on the third machine Mr. Tyler has owned.

FLIGHT
AIRCRAFT ENGINEER AIRSHIP

AIRISMS FROM THE FOUR WINDS

Pinedo's Misfortune

After having succeeded in accomplishing nearly two out of the three stages of his wonderful round-Atlantic flight, the Marchese de Pinedo has received an unfortunate check to the splendid progress he made up to his arrival in the United States, for his Savoia S.55 seaplane has been destroyed by fire. As reported last week, he arrived at San Antonio, Tex., on April 2, and he set out again on April 4. Just as he approached Elephant Butte he almost ran out of petrol, and he only just managed to land there —the only spot where there was any water. The Marquis experienced some difficulty in taking off the next day owing to engine trouble, but eventually he arrived, on April 6, at Roosevelt Dam, Arizona, where he alighted to refuel before proceeding to San Diego. He was all ready to start, and was standing on the shore waiting to embark, when there was an explosion on the seaplane, which suddenly burst into flames. The crew, who had been going over the engines, escaped by jumping overboard, but the seaplane was completely destroyed. It is reported that the disaster was caused by a youth, who was in a boat alongside the machine, dropping a lighted match into the petrol-covered water. He was larking with another boy over a cigarette, and stated that it was entirely an accident, for which he was sorry. The U.S. War Department immediately offered the Marchese de Pinedo a U.S. Army aeroplane with which to complete his flight. It was decided that a new Savoia machine should be sent out to Pinedo from Italy, and Sig. Balbo, Italian Under-Secretary of State for Air, has already selected a new S.55, which will be dispatched from Genoa on April 25. Meanwhile, Pinedo and his companions are being conveyed to San Diego, thence to New York, by U.S. Navy machines. By the time he gets to New York the new Savoia will have arrived.

The Service African Flights

The R.A.F. flight, of four Fairey 3 F's, under Air Commodore C. R. Samson, which flew from Cairo to Kisumu, and the South African flight, of four D.H.9's, under Maj. Meintjes, which flew from Pretoria to Kisumu, have completed their operations—with great success—with the manœuvres at Nairobi. On April 10, therefore, both flights left Nairobi for Tabora, Tanganyika, *en route* for the Cape.

The American Atlantic Attempts

The two attempts to fly from New York to Paris by Commander Byrd and Noel Davis, respectively, will probably be made next month. Byrd's flight has been financed by Mr. Rodman Wanamaker, who has been interested in this problem since 1914, and the machine will be a 3-engined Fokker. The Davis flight is being organised by the American Legion, and Davis has already made successful trial flights on his Pathfinder machine, "American Legion," at Bristol, Delaware.

INST.Ae.E. HOUSE DINNER

At the Engineers' Club the Institution of Aeronautical Engineers held their house dinner on April 8, at which Capt. F. Courtney, the test pilot, gave his postponed lecture on the "Autogiro." The Chairman was Capt. Lamplugh, who said that this would be the last house dinner given by the Institution as a separate entity before its amalgamation with the R.Ae. Society. Indicative of this union was the presence of some members of the R.Ae. Society, including Lord Thomson, Major Mayo and Mr. North.

Capt. Courtney said that the development of the "Autogiro" had been impeded by the attitude of so many to regard the "Autogiro" as a sort of curio. Actually, it was a machine that overcame the difficulties associated with the ordinary aeroplane; that was to say, that it overcame the stall, descended in a confined space very slowly, and with further minor improvements it would also ascend with a short run. The revolving wings maintained a high speed when the machine was stationary. On the question of performance the "inexperts" had taken a very pessimistic and disparaging view of the machine. They almost regarded it as helpless. But there was nothing to stop it comparing with the performance of the ordinary aeroplane. The wings now worked at more efficient angles. There was less efficiency originally, but this had improved. There was an impression, he said, that it could sit in the air, and it was therefore an admirable machine for accurate bombing; but that was hardly true.

Its effectiveness at slow speeds corresponded to the increase of horse-power of the engines installed. For military purposes the machine came under criticism, too. Actually, it could manœuvre in a normal manner, but acrobatics was a different question at the moment. Essentially, there were unknown load factors on the structure that constituted a disadvantage. Its vulnerability would improve in the future type, which would be very simplified. Its ineptitude for military purposes was through the difficulty of firing through the wings. The revolving wing covered a wide range of fire. Some means were necessary to avoid hitting them when firing. The recent failure of the "Autogiro" in the air was not a surprise to him. It would have been remarkable if it had not failed at some time. It was particular to all inventions since the beginning of flying. Further investigations of the structure were being made by the Air Ministry, but he thought they were making matters rather difficult by their wandering through abstruse mathematics. He did not think that the future development of the "Autogiro" was a question of abstruse mathematics at all; it was merely a matter of ordinary mechanical investigation.

Lord Thomson opened the discussion and compared the diffidence and disparagement shown towards the "Autogiro" by some people to the similar experience of Brennan and his experiments. He said that we had to convince the scientists that it was scientifically sound. We had to make a brave fight for aviation and not be trammelled by any inferiority complex.

Major H. E. Wimperis said that the "Autogiro" was the most important invention in the last ten years. He thought that the future of private flying, which depended on the ordinary man regarding flying as customary, would not come with the straight wing. The revolving wing was a most remarkable invention which, at the present period of investigation, defied mathematica calculations. According to these it should land twice as fast as it does. When it crashed recently it fell not much faster than the rate of an ordinary descent. It beat the slow descent of the parachute. It was incomprehensible. At the present he had stopped further experimental flying on the machine until the weakness of the central bearing, which was the cause of the recent crash, was investigated. He thought that if the "Autogiro" made good it would have a very wide effect on private flying.

Mr. Bertram, Deputy Director for Civil Aviation, asked whether it was possible to have a machine with a parachute effect as a whole, as the individual use of the parachute in the passenger's cabin was not very practicable.

Major Mayo asked what possibility there was of adapting the multi-engine principle to the "Autogiro," which he thought was essential for the safety of aircraft. He quoted the confidence he felt in the three-engine principle since his recent flight in the "Hercules" to Cairo.

Mr. North mentioned his long and pleasant association with Captain Courtney, and he thought that the invention he was now engaged on was one of the two inventions of the decade. He did not think that it would detract from the merits of the idea if the "Autogiro" did not prove a future practical machine. He uttered a warning against the prevalent notion that the future of aviation entirely rested on the question of safety. It was of equal importance that we could prove to the public the saving of time and money in travelling by air.

Captain Courtney, replying to the discussion, said that in criticising the difficulties that he thought were being made by the tendency for the mathematicians to tackle the problems of the "Autogiro" through abstruse mathematics he was not casting any reflection on all that Major Wimperis and his staff had done for the development. Major Wimperis had been solely responsible for the realisation of the potential value of the machine, and on him had rested the decision as to whether the public money of this country should be expended on the experiments. The country owed him a great debt for all that he had done and was doing. Describing his recent crash as an instance revealing the parachute effect of the machine, he said that one blade broke off when he was about 100 ft. high, and it seemed a long time before he hit the ground. Actually, it was longer than he thought. He was being pitched about considerably, and he got a glimpse of the ground twice: once when he thought it was 50 ft. below and again when he gauged it as 20 ft. below, but the time that elapsed before he crashed proved that he was considerably wrong in his guesses. The question of using more than one engine was quite simple—if it was necessary. Owing to the slow forward speed of the "Autogiro" when landing the cross wind effect was greater, and it was therefore necessary to have a wide undercarriage, so that it could accommodate multiple-engines. As to what the machine was actually capable of, Captain Courtney gave an admirable illustration by comparing the plight of a passenger suddenly left to his own resources in the "Autogiro" and then in an ordinary aeroplane. In the former case, if he merely held the "stick" back and did nothing more he would land quite safely, but in the latter case he would come to grief.

THE ROYAL AIR FORCE

London Gazette, April 5, 1927.

General Duties Branch

M. Fountain-Barber is granted a short service commn. as a Pilot Officer on probation with effect from and with seniority of April 2; Lieut. D. F. W. Atcherley, E. Lancs. Regt., is granted a temp. commn. as a Flying Officer on seconding for four years' duty with R.A.F.; March 19.

The follg. Pilot Officers are promoted to the rank of Flying Officer:—J. C. H. Tavendale; June 17, 1926. A. H. Montgomery; Dec. 16, 1926. A. V. Hammond; Jan. 30. A. J. L. Hughes; Feb. 13. J. C. Lewis; Feb. 18. A. P. Wayte; March 5. Pilot Officer on probation F. H. Bailey is confirmed in rank; March 15. Wing-Commander J. T. Babington, D.S.O., is placed on half-pay, scale B, March 9 to 26, inclusive. (Substituted for *Gazette*, March 22). Flying Officer R. F. Casey, D.F.C., is placed on retired list at his own request; April 1. Flying Officer W. C. Ward is placed on retired list on account of ill-health; April 6. Flying Officer L. F. T. Price resigns his short service commn.; April 6. Sqdn-Leader A. A. L. Miller (Lieut.-Com., R.N.) relinquishes his temp. commn. on return to Naval duty; March 31. E. H. P. Slessor, Lieut., R.N., Flying Officer, R.A.F., relinquishes his temp. commn. on return to Naval duty; April 3.

Stores Branch

Flying Officer G. F. P. Warren is granted a permanent commn. with effect from June 24, 1926, on completion of his probationary service. The follg. Pilot Officers are promoted to rank of Flying Officer (March 10):—E. G. M. Charleson, L. Taylor. Flight Lieut. C. Y. Mitchell is placed on retired list on account of ill-health; April 6.

Medical Branch

Flight Lieut. J. G. Skeet relinquishes his temp. commn. on completion of service; March 15.

Memorandum

No. 318906 Flight Cadet E. Jackson is granted an honorary commn. as 2nd Lieut. with effect from the date of demobilisation.

Reserve of Air Force Officers

The follg. are granted commns. in Class A.A. General Duties Branch, as Pilot Officers on probation:—D. R. Fremantle, O. F. Maclaren, L. R. Stooke; March 21. B. J. A. Webb; March 22. The follg. Pilot Officers are promoted to rank of Flying Officer:—J. A. Lincoln; March 21. L. R. Winter; March 21. H. C. Barrett; March 28. H. Wood; March 30. The follg. Flying Officers are transferred from Class A to Class C:—R. S. Carroll, A.F.C.; Jan. 25. G. Richardson; April 5.

The follg. relinquish their commissions on completion of service:—Flying Officer H. L. Miller; March 11. Flying Officer L. D. P. Joseph; March 18. Flight Lieut. M. J. Cahalane, M.B.; April 4.

Gazette, March 22, concerning Pilot Officer V. P. Field is cancelled and *Gazette* March 8 stands.

Princess Mary's R.A.F. Nursing Service

Mrs. L. L. Mackenzie resigns her appointment as Sister; March 16.

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Squadron Leader G. R. A. Deacon, M.C., to No. 13 Sqdn., Andover, 3.4.27.

Flight-Lieutenants: N. Keeble, D.S.C., D.F.C., to R.A.F. Depot, Uxbridge, 7.4.27. D. D'A. A. Greig, D.F.C., to H.Q., Fighting Area, Uxbridge, 11.4.27. W. E. Purdin, to Schl. of Photography, Farnborough, 11.4.27. D. Gilley, D.F.C., and H. K. Goode, D.S.O., D.F.C., to No. 8 Squadron, Aden, 1.3.27. W. A. K. Dalzell, to R.A.F. Cadet College, Cranwell, 4.4.27. L. Darvall, M.C., to No. 2 Flying Training School, Digby, 4.4.27. C. A. Hoy, M.C., to Aeroplane and Armament Experimental Estabt., Martlesham Heath, 8.4.27.

Flying Officers: V. Rees, to Marine Aircraft Experimental Estabt., Felixstowe, 4.4.27. J. H. Slater, M.B.E., to R.A.F. Depot, Uxbridge, on transfer to Home Estabt., 17.3.27. R. A. A. Cole, to Heliopolis Details, 9.3.27. F. W. Moxham and G. N. J. Stanley-Turner, to No. 8 Sqdn., Aden, 1.3.27. C. H. A. Farnan, to No. 2 Flying Training Sch., Digby, 4.4.27. J. A. Mollison, to No. 5 Flying Training Sch., Sealand, 4.4.27. F. G. Jennings, to R.A.F. Base, Gosport, 4.4.27. H. T. R. Cripps, to No. 1 Flying Training Sch., Netheravon, 4.4.27.

Pilot Officers: A. W. L. C. Allen, to No. 5 Flying Training Sch., Sealand, 6.4.27. K. Garston-Jones, to No. 111 Sqdn., Duxford, 8.4.27. M. Fountain-Barber, to No. 5 Flying Training Sch., Sealand, on appointment to a Short Service Comm. (on probation), 2.4.27. G. A. Underdown, to No. 16 Sqdn., Old Sarum, 23.3.27. E. F. Wain, to No. 16 Sqdn., Old Sarum, 2.4.27. J. R. Mutch, to No. 4 Sqdn., Farnborough, on appointment to a Permanent Comm. from Cadet College, 11.3.27. H. G. Wheeler, to No. 100 Sqdn., Spittlegate, on appointment to a Permanent Comm. from Cadet College, 15.3.27.

Stores Branch

Wing Commander W. R. Bruce, O.B.E., to No. 4 Stores Depot, Ickenham, 29.3.27.

Flying Officers: R. Bassett, to R.A.F. Depot, Uxbridge, on transfer to Home Estabt., 14.3.27. C. N. Scott, to No. 8 Sqdn., Aden, 1.3.27.

Medical Branch

Squadron Leaders: P. M. Keene, D.P.H., to R.A.F. Depot, Uxbridge, 29.4.27. R. H. Knowles, M.D., D.P.H., to Palestine General Hospital, 21.3.27.

Flight Lieutenants: T. J. X. Canton, M.B., to R.A.F. Base, Calshot, 12.4.27. J. Parry-Evans, to H.Q., Egypt, 10.3.27. L. C. Palmer-Jones, to No. 208 Sqdn., Egypt, 25.3.27. D. B. Smith, M.B., to Station Commandant, Basrah, 5.3.27.

Flying Officers: R. Thorpe and E. J. T. McWeeney, M.B., to R.A.F. Depot, Uxbridge, 4.4.27. P. D. Barling, M.B., to No. 8 Sqdn., Aden, 1.3.27. J. McM. Wilder, to R.A.F. British Hospital, Iraq, 1.3.27. A. L. St. A. McClosky, to Home Aircraft Depot, Henlow, 7.4.27.

NAVAL APPOINTMENTS

The following appointments have been made by the Admiralty:—

Lieuts. (Flying Officers, R.A.F.): H. M. S. Forbes, D.S.C., to *Eagle*, and for 402 Flight, for flying duties; J. Nicholson, G. C. Dickins, and P. W. W. Wootten, to *Eagle*, and for 460 Flight, for flying duties (March 25).

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IN PARLIAMENT

Aviation Grounds

LIEUT.-COMMANDER KENWORTHY asked how many municipalties have provided, or made arrangements for, landing-fields in the areas for which they are responsible; and whether he has impressed on the municipalities and local government authorities the necessity of ear-marking certain suitable land for aviation ground in view of probable future developments in civil and military aviation?

Sir S. Hoare: As regards the first part of the question, so far as I am aware no municipalties have as yet made provision for landing grounds; as regards the second part, the attention of local authorities has been drawn to the desirability of making such provision, particularly in connection with town planning schemes.

Lieut.-Commander Kenworthy: Will you press this matter on the municipalities, and point out to them that they should get the land now, so that its price will not be enhanced when aviation has developed further?

Sir S. Hoare: Yes, I have drawn the attention of the municipalties to the need for that, and no doubt your question will also draw their attention to it.

Airship Programme

MR. HARDIE, on April 6, asked the Secretary of State for Air the amount expended on the airship programme since its inception up to the latest convenient date, and the proportion of this amount expended upon experiments and research?

Sir S. Hoare: The total expenditure on the present airship programme since its inception in June, 1924, to March, 1927, is approximately £980,000; the proportion expended on experiments and research is 27 per cent.

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R.A.F. Football

THE R.A.F. were beaten by the Royal Navy and Marines by seven goals to nil at Uxbridge in the championship for the fourth successive time. The R.A.F. defence played a sound game in the first half against the spirited attack of their opponents, but in the second half they were quite unable to hold them. Hopkins scored the first goal following good work by Robinson and Davidson. The opponents lost their back, Dixon, for part of the game owing to injury. In the second half the goals were scored by Davidson (two), Hopkins, Coates (two) and Richards.

R.A.F. Squash Rackets

THE R.A.F. Squash Racket Club have finished top of the Second Division as a result of the Inter-Club Squash Racket Tournament for the Bath Club Cup, and in accordance with the rules of the competition they now have the privilege of challenging Prince's Club who have finished bottom of the First Division. The club which finally wins will be in the First Division next season.

AERONAUTICAL PATENT SPECIFICATIONS

(*Abbreviations*: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.)

APPLIED FOR IN 1925

Published April 14, 1927

31,820. A. H. R. FEDDEN, L. F. G. BUTLER and BRISTOL AEROPLANE CO., LTD. Valves and valve gear for i.c. engines. (267,597.)

31,821. A. H. R. FEDDEN, L. F. G. BUTLER and BRISTOL AEROPLANE CO., LTD. Cylinders for i.c. engines. (267,598.)

32,446. J. H. SPARSHATT. Aircraft, etc. (267,632.)

APPLIED FOR IN 1926

Published April 14, 1927

4,955. G. W. MÜLLER. I.c. engines of air-cooled type. (267,689.)

5,949. C. M. TIMBRELL. Rotary i.c. engines. (267,702.)

17,596. J. HAW. Metal screw propellers. (267,773).

17,666. R. BERES and K. VASS. Auxiliary rotor device for airscrews. (267,774.)

20,129. NIEUPORT-ASTRA. Metal screw propellers. (258,238.)